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**SAFETY-KLEEN CHICAGO
RECYCLE CENTER
PHASE I RFI REPORT**

Prepared for:

Safety-Kleen Corporation
Chicago, Illinois

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June 30, 1994

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EXECUTIVE SUMMARY

This RCRA Facility Investigation (RFI) report has been prepared by LTI-Limno-Tech, Inc. (LTI) on behalf of Safety-Kleen Corp. (Safety-Kleen) to document Phase I RCRA and subsurface investigations conducted at the Safety-Kleen Chicago Recycle Center (CRC) in accordance with the approved May 3, 1993 RFI Phase I Workplan (Workplan) and modifications stipulated in the September 23, 1993 and December 20, 1993 IEPA approval letters to the Workplan. The activities documented in this report were conducted from 1993 through early 1994. These activities were conducted by LTI personnel on behalf of Safety-Kleen to satisfy requirements of Section IV.B of the RCRA Hazardous Waste Management Part B Permit (the permit) for the CRC. This report is submitted in accordance with the schedule and reporting requirements specified in the September 23, 1993 Illinois Environmental Protection Agency (IEPA) qualified approval letter to the Workplan.

Section IV.B of the RCRA Hazardous Waste Management Part B Permit requires that a Phase I RFI be conducted for two Solid Waste Management Units (SWMUs) at the CRC: the area north of Container Storage Area #1; and, the area south of Tank Farm #2 and Tank Farm #3. These SWMU areas were identified as areas of concern in the RCRA Facility Assessment (RFA) conducted by IEPA in 1990. The RFA was conducted as the first phase of the corrective action program, under the authority of RCRA Section 3004. The requirements for the Phase I RFI stemmed from the recommendations of the RFA.

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The goals of the required Phase I investigation are to:

- (a) demonstrate conclusively whether or not any releases of hazardous wastes or hazardous constituents have occurred from these two SWMU areas (Item #3 11 in the September 23, 1993 IEPA qualified approval letter to the Workplan);
- (b) provide data regarding the nature, extent and distribution of impacts (page 1 of the Workplan); and
- (c) determine the horizontal and vertical extent of fill material present in the area of investigation (Item #11 in the September 23, 1993 IEPA qualified approval letter to the Workplan).

The scope of the investigation satisfied the objectives of a Phase I RFI, as specified in Attachment G to the permit, and provided additional preliminary information related to Phase II objectives. Subsurface soil and groundwater investigations conducted in the vicinities of Container Storage Area No. 1, Tank Farm No. 2 and Tank Farm #3, including the area of the alley located along the west side of Tank Farm No. 3, indicated that chemicals are present in the subsurface in the vicinities of Tank Farms #2 and #3, and Container Storage Area #1. Preliminary Phase II information was collected regarding the extent and distribution of chemicals in soils and groundwater at the site; and the extent and distribution of fill material present in the area of investigation has been determined.

The results of geological investigations indicate that soils at the site are comprised of approximately one to seven feet of non-indigenous fill or topsoil material, underlain by up to thirteen feet of clayey silt/silty clay material which grades downward into a laterally extensive stiff, dark-grayish brown fine-laminated lakebed clay. The top of the clay unit occurs at an average depth of ten feet below grade across the area of investigation. The clay exists as deep as sixty feet below grade at the western side of the site, in the vicinity of SB5/MW5, and contains a thin saturated muddy silt zone at approximately 37 to 38 feet below grade and a thin saturated silty mud zone at 50.5 feet below grade.

The horizontal extent of the non-indigenous fill zone occurred throughout the area of investigation. The fill material is thinnest in the vicinity of Tank Farm #3, where it overlies a subsurface mounding in the clayey silt/silty clay zone and the lower clay unit.

The results of the hydrogeological investigations indicate that a water table exists at approximately 3 to 5 feet below grade at the site. The shallow, unconfined saturated zone below the water table is comprised of the fill material and clayey silt to silty clay soils overlying the lower clay unit. Hydraulic conductivity testing indicates that the permeability of the clayey silt/silty clay unit ranges from 2.46×10^{-5} cm/sec to 8.16×10^{-4} cm/sec, and that the average permeability of the clay is 2.4×10^{-8} cm/sec. Groundwater flow directions vary across the site and appear to be related to the subsurface structure of the clay unit underlying the saturated zone. Significant variations in groundwater flow direction due to seasonal changes or responses to precipitation are indicated.

The shallow saturated zone is not used as an aquifer at the site, and no water withdrawal wells are known to exist within 1500 feet of the CRC. Regional bedrock aquifers underlie the lower clay unit. There is no evidence that chemicals resulting from site releases are present in the bedrock aquifers.

Chemical constituents were detected in shallow soils and groundwater in the vicinities of the SWMUs: VOCs and SVOCs and some metals (comparable to background levels) were detected in soils and groundwater samples; no PCBs, sulfides, cyanide, dioxins, furans were detected in groundwater samples collected from monitoring well MW2.

The vertical distribution of soils (and groundwater) impacts is fairly well defined, and is limited to a depth of 20 feet below grade throughout most of the area of investigation. Some additional confirmatory sampling is needed in the vicinity of Container Storage Area #1. The southern and western extent and distribution of chemicals in soils and groundwater are fairly well defined. Further investigations are needed to determine the northern and eastern horizontal extent and distribution of chemicals in soils and groundwater.

Additional activities are proposed for the CRC to supplement the hydrogeological information obtained from the Phase I RFI and further determine the extent and distribution of chemicals in soil and groundwater.

1. INTRODUCTION

1.1 GENERAL

This RCRA Facility Investigation (RFI) report has been prepared by LTI-Limno-Tech, Inc. (LTI) on behalf of Safety-Kleen Corp. (Safety-Kleen) to document Phase I RCRA and subsurface investigations conducted at the Safety-Kleen Chicago Recycle Center (CRC) in accordance with the approved May 3, 1993 RFI Phase I Workplan (Workplan) and modifications stipulated in the September 23, 1993 and December 20, 1993 IEPA approval letters to the Workplan. The activities documented in this report were conducted from 1993 through early 1994. These activities were conducted by LTI personnel on behalf of Safety-Kleen to satisfy requirements of Section IV.B of the RCRA Hazardous Waste Management Part B Permit (the permit) for the CRC. This report is submitted in accordance with the schedule and reporting requirements specified in the September 23, 1993 Illinois Environmental Protection Agency (IEPA) qualified approval letter to the Workplan.

1.2 RFI PURPOSE AND GOALS

Section IV.B of the RCRA Hazardous Waste Management Part B Permit requires that a Phase I RFI be conducted for two Solid Waste Management Units (SWMUs) at the CRC. These SWMU areas include (see Figure 4):

- (1) the area north of Container Storage Area #1; and
- (2) the area south of Tank Farm #2 and Tank Farm #3.

These SWMU areas were identified as areas of concern in the RCRA Facility Assessment (RFA) conducted by IEPA in 1990. The RFA was conducted as the first phase of the corrective action program, under the authority of RCRA Section 3004. The requirements for the Phase I RFI stemmed from the recommendations of the RFA.

The goals of the required Phase I investigation are to:

- (a) demonstrate conclusively whether or not any releases of hazardous wastes or hazardous constituents have occurred from these two SWMU areas (Item #3 11 in the September 23, 1993 IEPA qualified approval letter to the Workplan);
- (b) provide data regarding the nature, extent and distribution of impacts (page 1 of the Workplan); and
- (c) determine the horizontal and vertical extent of fill material present in the area of investigation (Item #11 in the September 23, 1993 IEPA qualified approval letter to the Workplan).

The scope of the investigation satisfied the objectives of a Phase I RFI, as specified in Attachment G to the permit, and provided additional preliminary information related to Phase II objectives. Subsurface soil and groundwater investigations were conducted in the vicinities of Container Storage Area No. 1, Tank Farm No. 2 and Tank Farm #3, including the area of the alley located along the west side of Tank Farm No. 3.

1.3 RFI REPORT CONTENT AND ORGANIZATION

This report is organized into seven (7) sections. This section provides introductory and report organizational information, and presents the purpose for conducting the RFI and goals, as specified in Items # 5 and #19a of the September 23, 1993, IEPA qualified approval letter to the Workplan. Section 2 presents site location and background information. Section 3 outlines the overall investigation activities and associated costs, and presents the qualifications and required certifications of the personnel who participated in the investigations, as specified in Item #5 of the September 23, 1993 IEPA qualified approval letter to the Workplan. Sections 4 and 5 detail the Phase I and subsurface investigation procedures and results, as specified in the workplan and in Items #5, #19, #20 and #21 of the September 23, 1993 IEPA qualified approval letter to the Workplan. Data evaluations and discussion of results are presented in Section 6. Section 7 summarizes the RFI conclusions and proposes recommended activities for additional Phase II investigations, as specified in Item #5h of the September 23, 1993 IEPA qualified approval letter to the Workplan.

2. CRC LOCATION AND BACKGROUND

2.1 LOCATION

The Chicago Recycle Center (CRC) is located within the city limits of Chicago, Cook County, Illinois between 42nd Street and 43rd Street, approximately 1000 feet east of Ashland Avenue. Figures 1 and 2 depict the CRC on a regional USGS topographic map and a site topographic map, respectively. The CRC occupies approximately eight acres of land in the Chicago Stockyards, an area with a long history of industrial use. The present land use is characterized as urban commercial/industrial.

2.2 PRESENT FACILITY OPERATIONS

The CRC is an organic chemicals reclamation and recycling facility permitted to treat and store hazardous wastes under a RCRA Hazardous Waste Management Part B permit (effective November 4, 1992). The permit consists of a RCRA permit issued by IEPA under Title 35 of the State of Illinois Rules and Regulations and a Hazardous Waste Management Permit issued by USEPA under the Hazardous and Solid Waste Amendments of 1984 to RCRA (HSWA).

The CRC accepts organic chemicals and solvent wastes from industrial and commercial facilities. Reclamation and recycling operations involve either regeneration of the spent solvent or blending and processing of the material for use as a hazardous waste fuel. Wastes accepted at the facility include organic acids, chlorinated and fluorinated hydrocarbons, amines, alcohols, aliphatic and aromatic compounds, waste oils, and paint wastes. The facility serves a variety of industries including chemical manufacturers, paint manufacturers, pharmaceutical manufacturers, electronics manufacturers, maintenance shops, metal fabricators, and foundries. Processes utilized in the reclamation of used solvents, solvent mixtures, and other solvent containing wastes include neutralization, distillation, fractionation, liquid-liquid extraction, and drying.

Tank farms and container storage areas are used to manage or store a variety of compounds at the CRC. The list of materials managed or stored in a particular unit may vary from day to day.

Hazardous wastes are received at the CRC in containers via trucks. All containers are stored in Container Storage Area No. 1 (see Figure 3). Container Storage Area No. 1 is constructed with secondary containment for spill and leak control, and has a maximum hazardous waste storage capacity of 108,900 gallons. The wastes that are permitted to be stored in Container Storage Area No. 1 are listed in Attachment A of the RCRA Part B permit. Other container storage areas are used for the storage of product.

There are five existing tank farms at the CRC, originally containing 82 above-ground tanks, 14 of which have been removed. Of the 68 remaining tanks, 59 are subject to RCRA regulations. In addition, four more tank farms have been proposed with 27 additional tanks.

2.3 HISTORICAL FACILITY OPERATIONS

The use of the CRC property prior to 1969 is unknown but likely associated with livestock processing. A 1901 Sanborn map indicates that a structure called a Meat Preserving and Cooling House once occupied the site. Between 1969 and 1985, the site was owned and operated by Custom Organics for industrial chemical processing. Safety-Kleen acquired the site in 1985 for its current use as a recycling center.

Between 1969 and 1985, when the facility was owned and operated by Custom Organics, only Tank Farm No. 3 was in existence. No records are available documenting the use of the tanks. According to the Safety-Kleen CRC manager, who was employed by Custom Organics between 1981 and 1985, the tanks were used for a variety of purposes, including the storage of hazardous waste, in-process material, product, and wastewater. A partial list of chemicals handled by Custom Organics included: dimethyl acetamide; gamma butyrolactone; methylene chloride; n-methyl pyrrolidone; toluene; 1,1,1-trichloroethane; and trichlorotrifluoroethane.

After Safety-Kleen purchased the facility in 1985, the present tank farms and container storage areas were constructed. The use of Tanks Nos. T190 through T193 in Tank Farm No. 3 for the storage of hazardous waste, in-process material, and product was discontinued, and in 1991 they were removed under an approved RCRA closure plan.

2.4 DESCRIPTION OF THE SWMU AREAS

Section IV.B of the RCRA Hazardous Waste Management Part B permit requires that the Phase I RFI be conducted for two SWMU areas at the CRC, including: 1) the area north and west of the Container Storage Area #1; and 2) the area south of Tank Farms #2 and #3. The extent of these SWMU areas is shown in Figure 4. These areas presently do not contain any building structures or fixed equipment.

The SWMU areas reportedly have been in their present state (without building or equipment structures) since at least 1969. Subsurface obstructions encountered in the SWMU areas during previous soils investigations were characterized as old building foundations and, therefore, suggest that buildings were once present in portions of the SWMU areas. As mentioned above, the CRC is in the Chicago Stockyard area, and was the site for historical operations related to livestock processing.

No materials are presently managed or stored at the two SWMU areas. However, historical spills have been reported for the SWMU areas. IEPA Land Division files indicate that open drums containing waste material and rain water were observed in storage in the area south of Tank Farm No. 3 on September 9, 1981, prior to Safety-Kleen ownership. A spill of semi-solid waste material was observed in this area on October 10, 1982, also prior to ownership by Safety-Kleen. Safety-Kleen documented a spill of 20 gallons of trichlorotrifluoroethane (freon-113) which occurred on July 22, 1987, in the area on the west side of Container Storage Area No. 1. The area was uncontained, and impacted soil was excavated at that time.

For areas adjacent to the SWMU areas, specifically Tank Farm #3, closure activities have been conducted. Between April and July, 1991, Tank Nos. 190 through 193 in Tank Farm #3 were removed from service and closed by Safety-Kleen. According to the closure report (Canonie, 1991) the four above-ground steel tanks were emptied, cleaned, and decontaminated, then the tanks were removed and recycled as scrap metal. The concrete slabs on which the four tanks had rested were removed, as were the northern and western walls of the concrete containment dike.

2.5 DESCRIPTION OF SURROUNDING AREAS

As illustrated in Figure 2, land use in the area surrounding the CRC is urban commercial/industrial. Immediately to the east of the facility are Rosebud (manufacturers of boxes and containers) and an Illinois Air Emission Station. The Ashland Cold Storage warehouse is located immediately to the west of the facility. Immediately to the south of the facility is West 43rd Street and Cameo Containers.

No significant surface features such as lakes, ponds, wetlands, streams, depressions, or other features which would affect the migration routes of potentially released materials exist within a 1500 foot radius of the facility (see Figure 2). A north-south trending sewer exists in the alley immediately to the west of the SWMU areas. There are no known withdrawal wells in the 1500 foot radius around the CRC.

According to the RFA, the CRC is not located within any 100 year floodplain. Because the facility does not conduct any on-site disposal of waste, it is not subject to floodplain standards for disposal facilities. The nearest surface water to the facility is the South Branch of the Chicago River, located approximately 1.5 miles to the north.

Due to the exclusively urban/industrialized nature of the area in the vicinity of the CRC, there are no natural environmental systems, such as surface water bodies or wetlands, which would be potentially threatened by a release from the SWMU areas. Similarly, residential exposure to potential releases in the area is minimal. Nearby human populations potentially exposed to potential releases from the SWMU areas would be limited to workers at the CRC and the adjacent industries. The operational portion of the site is completely fenced.

3. SUMMARY OF RFI ACTIVITIES/COSTS, PERSONNEL QUALIFICATIONS AND CERTIFICATIONS

3.1 SUMMARY OF RFI ACTIVITIES AND COSTS

As specified in Item #5d in the September 23, 1993 IEPA qualified approval letter to the Workplan, Table 1 chronologically summarizes the primary activities and documents associated with the CRC RFI, beginning with the May, 1993 Work Plan and ending with this report. Included in Table 1 are the costs associated with these activities, where applicable.

3.2 PERSONNEL QUALIFICATIONS

The approved Phase I RFI Workplan was conducted on behalf of Safety-Kleen by LTI personnel. The analytical laboratory services were provided by Weston/Gulf Coast Laboratories (University Park, Illinois) for the December, 1993 soil sampling event and for the first two rounds of groundwater sampling in December, 1993 and February, 1994. Safety-Kleen Technical Center will provide the laboratory analytical services for the third and fourth rounds of groundwater sampling (these data are not included in this report, but will be provided in the Third and Fourth Quarterly Reports, due July 15 and October 15, 1994, as stipulated in Items #5, #6, #18 and #211). Soil borings and monitoring wells were installed by Mateco Drilling Company (Grand Rapids, Michigan) under the supervision of LTI personnel. John D. Rebik and Associates (Dundee, Illinois) provided surveying services.

Appendix A contains general qualifications summaries for LTI personnel, Weston/Gulf Coast Laboratories, Mateco Drilling Company and John D. Rebik and Associates, as specified in Item #5f in the September 23, 1993 IEPA qualified approval letter to the Workplan.

3.3 CERTIFICATIONS

As specified in Item #5 in the September 23, 1993 IEPA qualified approval letter to the Workplan, Appendix B contains the signed certification forms provided by IEPA. The form signed by a responsible officer of Safety-Kleen and LTI's registered professional engineer certifies that the RFI activities were completed in accordance with the specifications in the approved RFI Phase I Workplan. The form signed by a responsible officer of Safety-Kleen and a responsible officer of Weston/Gulf Coast Laboratories meets the requirements of 35 IAC 702.126 and certifies that the requirements of the September 23, 1993 IEPA approval letter were met during the chemical analyses of all samples, except where noted otherwise. The signatures on these forms meet the requirements of 35111. Adm. Code Section 702.126.

4. RFI PROCEDURES

4.1 GENERAL

Seven shallow soil borings/monitoring wells (SB4/MW4, SB5/MW5, SB6/MW6, SB7/MW7, SB8/MW8, SB9/MW9 and SB10/MW10) and one deep soil boring (SB5deep) were installed and sampled at the CRC from December 6 through December 9, 1993. Quarterly sampling of the monitoring wells was conducted in December, 1993, February, 1994 and May, 1994. The locations of the soil borings and monitoring wells are depicted in Figure 5.

The procedures used for soil boring installation, sampling and analysis are summarized first, then the monitoring well installation, sampling and analytical procedures are presented, followed by a description of the procedures used for in-situ hydraulic conductivity testing. Color photographs depicting the Phase I activities for the SWMU areas are presented in Appendix C.

4.2 SOIL INVESTIGATION PROCEDURES

4.2.1 Soil Boring Installation

Seven shallow soil borings (SB4, SB5, SB6, SB7, SB8, SB9 and SB10) and one deep soil boring (SB5deep) were installed and sampled at the CRC from December 6 through December 9, 1993 (see Figure 5). The soil borings were installed by Mateco Drilling Company with a CME-55 drilling rig equipped with 4.5-inch I.D./6-inch O.D. hollow stem augers. The soil borings were installed and sampled to provide geologic data and information regarding the extent and distribution of chemicals in soils and groundwater. Soil borings SB4 through SB8 were proposed in the Workplan and soil borings SB9 and SB10 were added in accordance with Items #21d and #21e in the September 23, 1993 IEPA qualified approval letter. Soil borings were installed and sampled in accordance with the QAPP, as summarized herein.

Upgradient borings SB4 and SB5 were installed in the alley on the west side of the CRC to characterize the upgradient extent of chemicals in soils and groundwater, if any, and to evaluate the possible presence of upgradient sources. Downgradient borings SB6, SB7, SB8, SB9 and SB10 were installed to better characterize the nature and extent of on-site hazardous constituents in soil and groundwater. All of the soil boring locations were placed as proposed in the Workplan and the September 23, 1993 IEPA qualified approval letter, with the exception of SB6 (which had to be relocated further to the east to avoid hazards associated with drilling near overhead power lines).

The seven shallow borings were drilled to an average depth of approximately 20 feet below grade. The deep boring was drilled to 60 feet below grade. Soil boring SB5deep was completed by backfilling with grout to the surface. The shallow borings were backfilled with 0.75-inch bentonite pellets (hole plug) to approximately 10 feet below grade, then monitoring wells were installed in all of the seven shallow borings.

4.2.2 Soil Sampling, Field Screening and Analysis

Soil samples were collected from the seven shallow soil borings for physical, screening and chemical analysis data, and from the deep boring for physical and screening data only. The shallow boring soil samples were collected continuously with two-feet long, two-inch stainless steel split spoon samplers equipped with 6-inch brass liners, in accordance with the approved Workplan and Item #21e and Attachment 7 in the September 23, 1993 IEPA qualified approval letter. Deep boring SB5deep was installed less than ten feet away from shallow boring SB5; therefore, SB5deep was sampled starting at the completion depth of SB5 (i.e. 20 feet below grade), as recommended in Item #21e in the September 23, 1993 IEPA qualified approval letter. The deep boring was sampled continuously from 20 feet to 60 feet below grade with two-feet, two-inch diameter long stainless steel split spoon sampler.

Soil boring logs were maintained for each boring. The information recorded for each sampling interval included standard penetration blow counts, split spoon recovery, depth to water table, moisture content, Munsell soil color, and grain size and other physical soils characterizations, in accordance with the approved Workplan.

All split spoons were field screened for volatile organic compounds (VOCs) with a photo-ionization detector (PID) calibrated to a 99.4 ppm isobutylene standard. Background and soil screening data were recorded for each split spoon on the soil boring logs. Table 2 summarizes the background and soil PID results and split spoon recoveries for each sampling interval. This information was used to determine the depth of each soil boring and to guide selection of soil samples for laboratory analysis.

Immediately after opening each shallow boring split spoon, one of the fullest of the four brass liners was removed, capped with aluminum foil, placed inside a labeled plastic ziplock bag and stored on ice inside a cooler as a candidate sample for laboratory VOC analysis. The soils in the remaining three brass liners in each split spoon were used for field screening, physical descriptions, and semi-volatile organic compound (SVOC) and metals analyses. The soil from one to two brass liners (depending on recovery) was extruded into a labeled 16-ounce glass jar, sealed with a teflon lid and stored on ice as a candidate sample for laboratory SVOC and metals analyses. Duplicate VOC and SVOC samples were collected from split spoons with high recovery.

The completion depth of each boring and the selection of samples for laboratory analyses was determined in the field based on the following criteria: stratigraphic location, field screening results relative to background readings and sample recovery. A minimum of two split spoon intervals for each boring were selected for laboratory analysis, one from the upper fill zone and one from the lower clay unit. The interval in the upper fill zone (generally the first 10 feet below grade) with the highest PID reading relative to background was selected for laboratory analyses. If the highest relative PID reading occurred in more than one upper fill zone split spoon interval, then the interval with the larger sample recovery was selected for analyses.

All soil borings were completed in the clay unit underlying the site fill and silt layers. Borings were drilled to approximately 20 feet deep, or were terminated shallower if field screening results relative to background readings indicated no soils impacts. Field screening results and visual inspection indicated the presence of chemicals in groundwater and soils in most of the site borings, down to approximately 20 feet below grade. To avoid potential carrydown cross-contamination, a field decision was made to drill no deeper than approximately 20 feet below grade for this first phase of the subsurface investigations. Soil samples from the deepest clay interval were selected for laboratory analyses. If soil recoveries from the deepest clay interval were inadequate for laboratory sampling, then the next shallowest interval was selected.

A total of seventeen soil samples were submitted to Weston for VOCs analyses and seventeen soil samples were submitted for SVOCs and metals analyses. One brass liner from the clay unit in SB10 was retained for permeability testing. Figure 6 is a scaled drawing illustrating the vertical sampling locations for each soil boring. Table 3 summarizes the sample intervals that were submitted to laboratories for VOCs, SVOCs, metals and permeability testing.

4.2.3 Laboratory Methods

All organic and inorganic analyses for soil samples were conducted in accordance to SW-846 methods and protocols by Weston/Gulf Coast Laboratories, University Park, Illinois. Soil samples were analyzed for VOCs by Method 8240, including tetrahydrofuran and trichlorofluoroethane. A full base-neutral/acid-extractable analysis was performed on the SVOC soil samples by Method 8270, including the analytes pyridine, B-picoline and 1-methyl-2-pyrrolidinone. A TCLP analysis by Method 1311 was conducted to analyze the soil samples for arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver, in accordance with Item #9 in the September 23, 1993 IEPA qualified approval letter, with the exception that standard TCLP reporting limits were used. In addition, a clay sample from soil boring SB10 was submitted to Professional Service Industries, Inc. (PSI) in Ann Arbor, MI for permeability testing.

Tables 4 presents the lists of VOC and SVOC analytes.

4.2.4 QA/QC

Quality assurance/quality control measures were conducted in accordance with the procedures outlined in the Phase I RCRA Facility Investigation Quality Assurance Project Plan (QAPP) submitted with the Workplan. Field screening methods included continuous air monitoring with a PID, and all split spoon samples were scanned with the PID after opening the spoon. Two of the seventeen VOC soil samples and two of the seventeen SVOC soil samples submitted to the laboratory were duplicate samples (duplicate soil samples were submitted to the laboratory with the designations DUP1, DUP2, DUP3 and DUP4; Table 3 identifies the borings and sampling intervals from which the duplicates were collected). Field rinse blanks were collected from decontaminated brass liners at the beginning of each day of sampling, and submitted for VOC, SVOC and metals analyses. A laboratory trip blank accompanied the cooler of VOC samples throughout the sampling event, and was analyzed for VOCs. Data were reviewed in accordance with the data validation procedures specified in the QAPP. Data qualifiers were added, where appropriate, as documented in the QA/QC review summary (see Appendix E).

4.2.5 Decontamination

Decontamination measures were conducted in accordance with the procedures outlined in the QAPP, and Items #21x1-x2 and Attachment 7 of the September 23, 1993 IEPA qualified approval letter. The drilling equipment was steam cleaned prior to the installation of each boring. All brass liners were pre-rinsed in hot tap water, scrubbed in hot soapy (non-phosphate) tap water with a bottle brush, rinsed again in hot tap water, rinsed with reagent grade acetone, methanol and dilute (10%) hydrochloric acid, then given a final rinse with de-ionized water and finally wrapped in aluminum foil. The liners were removed from the foil wrap immediately prior to their use for sampling with the decontaminated split spoons. All split spoons were pre-rinsed in tap water, scrubbed with a brush in soapy tap water, then rinsed with tap and de-ionized water prior to use.

4.3 GROUNDWATER INVESTIGATION PROCEDURES

4.3.1 Monitoring Well Installation and Development

Seven shallow monitoring wells (MW4, MW5, MW6, MW7, MW8, MW9 and MW10) were installed in soil borings SB4 through SB10 at the CRC from December 6 through December 9, 1993 (see Figure 5). The monitoring wells were installed and sampled to provide information regarding the extent and distribution of chemicals in groundwater at the site. Monitoring wells MW4 through MW8 were proposed in the draft Workplan, and monitoring wells MW9 and MW10 were added in accordance with Item #21d in the September 23, 1993 IEPA qualified approval letter. Upgradient monitoring wells MW4 and MW5 were installed in the alley on the west side of the CRC to characterize upgradient areas and to evaluate the possible presence of upgradient sources. Downgradient monitoring wells MW6, MW7, MW8, MW9 and MW10 were installed to better characterize the nature and extent of on-site hazardous constituent impacts. All of

the monitoring wells locations were placed as proposed in the Workplan and the September 23, 1993 IEPA qualified approval letter, with the exception of MW6 (which had to be relocated further to the east to avoid drilling hazards associated with overhead power lines).

The wells were installed to an average depth of ten feet below ground level. Well construction materials consist of two-inch diameter Schedule 316 steel riser pipe and two-inch diameter, five-foot-long 10-slot stainless steel well screens equipped with 1.5-inch stainless steel plugs. All wells were screened in the same stratigraphic zone as previously installed site monitoring wells, in accordance with Item #21g in the September 23, 1993 IEPA qualified approval letter. Monitoring wells MW-6 and MW-10 were completed as flush mounts, and the others (MW-4, MW-5, MW-7, MW-8, MW-9) were completed as stick-up wells. For each monitoring well, the annulus between the borehole and the well screen was filled with #7 clean quartz sand to approximately two feet above the top of the screen, then filled with bentonite chips to approximately two feet below ground level, then filled with cement to grade. Padlocked steel outer casings and two to three bumper posts were installed around all stickup wells. Flush mount wells were installed with steel protective surface covers. The rim of the inner casing of each well was marked with a vertical reference line for static level measurements and capped with a compression fitting.

All seven newly installed monitoring wells were developed December 9 through 20, 1993, in accordance with the procedures outlined in the Work Plan. The wells were developed and surged with disposable bailers, and the development water was monitored for temperature, pH, turbidity and conductivity. With the exceptions of monitoring wells MW8 and MW10, all of the wells bailed dry throughout development and recharged slowly.

4.3.2 Groundwater Sampling and Analysis

The newly installed monitoring wells and the three existing site monitoring wells (MW1, MW2 and MW3) were sampled quarterly in December, 1993, February, 1994 and May, 1994, in accordance with the procedures and schedules presented in the Workplan and in the September 23, 1993 and December 20, 1993 IEPA qualified approval letters. In the December, 1993 and May, 1994 sampling events (First Quarter and Third Quarter, respectively), the ten monitoring wells were sampled for VOCs and SVOCs. In the February, 1994 sampling event (Second Quarter), monitoring wells MW1, MW3, MW4, MW5, MW7, MW8, MW9 and MW10 were sampled for VOCs and SVOCs, and monitoring well MW2 was sampled for 35 IAC 724 Appendix I scan parameters, excluding pesticides and herbicides. (Monitoring well MW6 could not be purged or sampled because of ice buildup inside the walls of the inner casing).

For each sampling event and prior to sampling, each monitoring well was screened with a PID immediately after opening the inner well casings. Each well was tested for immiscible fluids with a dual interface probe, according to the procedures specified in Item #21m in the September 23, 1993 IEPA qualified approval letter. Static level data was collected

from all site monitoring wells prior to sampling. All wells were purged of at least three casing volumes of groundwater and purge water was monitored for temperature, pH and conductivity data.

4.3.3 Laboratory Methods

All groundwater organic and inorganic analyses were conducted in accordance with SW-846 methods and protocols by Weston/Gulf Coast Laboratories, University Park, Illinois, for the First and Second Quarter sampling events. Groundwater samples were analyzed for VOCs by Method 8240, including tetrahydrofuran and trichlorotrifluoroethane. A full base-neutral/acid-extractable analysis was performed on the SVOC groundwater samples by Method 8270, including the analytes pyridine, B-picoline and 1-methyl-2-pyrrolidinone. Table 4 presents the lists of groundwater VOC and SVOC analytes.

Monitoring well MW2 was sampled for an abbreviated 35 IAC 724 Appendix I scan during the second Quarter sampling event, in accordance with SW-846 methods and protocols by Weston/Gulf Coast Laboratories, University Park, Illinois (see Item #21c in the September 23, 1993 IEPA qualified approval letter and the December 20, 1993 IEPA response to proposed modifications). Table 5 presents the list of organic and inorganic Appendix I parameters for monitoring well MW2. As stipulated in Item #21c in the September 23, 1993 IEPA qualified approval letter, pesticides and herbicides were not included in the Appendix I scan.

4.3.4 QA/QC

Quality assurance/quality control measures were conducted in accordance with the procedures outlined in the Phase I RCRA Facility Investigation Quality Assurance Project Plan (QAPP) submitted with the Workplan. Field screening methods included continuous air monitoring with a PID, and all monitoring wells were scanned with the PID immediately after opening the wells. Two clean, unused disposable bailers were used at each well; one for purging and one for sampling. The bailers were discarded after use at a given well and not used between wells. A duplicate groundwater sample for each analysis was submitted to the laboratory during each quarterly sampling event (monitoring well MW2 was sampled in duplicate for all the required Appendix I analyses during the Second Quarter sampling event). Field rinse blanks were collected from clean disposable bailers, and submitted for VOC and SVOC analyses. With the exception of the Second Quarter sampling event, a laboratory trip blank accompanied the cooler of VOC samples throughout each sampling event, and was analyzed for VOCs (the trip blank for the Second Quarter sampling event broke in transit). Data were reviewed in accordance with the data validation procedures specified in the QAPP. Data qualifiers were added, where appropriate, as documented in the QA/QC review summary (see Appendix E).

4.3.5 Decontamination and Waste Disposal

Non-disposable groundwater sampling equipment that was used between wells was decontaminated in accordance with the procedures outlined in the QAPP and Item #21x in the September 23, 1993 IIEPA qualified approval letter. All development and purge water and decontamination fluids were properly containerized and disposed of by Safety-Kleen through their normal waste handling practices.

4.3.6 Surveying

The locations of all ten site monitoring wells, the three existing piezometers (P1, P2 and P3) and five surface reference points were surveyed by John D. Rebik & Associates in December, 1993. Top of casing and ground elevations were surveyed for the ten monitoring wells and three piezometers, and the elevations of the five surface reference points were surveyed to a City of Chicago benchmark and converted to USGS datum elevations.

4.4 IN-SITU HYDRAULIC CONDUCTIVITY TESTING

During the Second Quarter sampling event, monitoring wells MW2, MW8 and MW9 were tested for in-situ hydraulic conductivity data. Although the Work Plan stated that monitoring wells MW1, MW3, MW6 and MW8 would be tested, neither MW1 or MW3 could be tested because of excessively slow recharge to these wells during sampling, and MW6 could not be tested because of ice buildup inside the inner casing walls. Monitoring well MW2 was tested instead of MW3 and monitoring well MW9 was substituted for MW1.

Both solid slug and air slug (pneumatic) methods were used to test the monitoring wells, in accordance with the procedures outlined in the approved Work Plan. Two pneumatic rising head tests were conducted at monitoring well MW9; two pneumatic rising head tests, one solid slug rising head test and one solid slug falling head test were conducted at monitoring well MW8; and one pneumatic rising head test was conducted at MW2. A pressure transducer and two-channel In-Situ Hermit data logger were used to record the data generated throughout the tests. Static water level measurements were collected manually with an electronic water level probe prior to the tests.

5. RFI RESULTS

As specified in Items #5, #19, #20 and #21 of the September 23, 1993 IEPA qualified approval letter, the following sections present the results of the Phase I soil investigations, groundwater investigations and hydraulic conductivity testing.

5.1 RESULTS OF SOIL INVESTIGATIONS

Soil boring logs are presented in Appendix D. The laboratory data sheets and chain-of-custody forms (COCs) for the soils analyses were included in the First Quarterly Report, submitted to IEPA January 27, 1994. The unvalidated and validated soils VOC, SVOC and metals results are summarized in Tables 6 and 7, respectively. Data validation procedures are presented in Appendix E.

5.2 RESULTS OF GROUNDWATER INVESTIGATIONS

IEPA well construction diagrams are presented in Appendix F. Well development logs are presented in Appendix G. Wellhead screening data and groundwater sampling data are presented in Appendix H.

The results from the December, 1993 and February, 1994 sampling events are summarized and discussed in the next section. The results from the May, 1994 sampling event will be provided in the July, 1994 Third Quarterly Report to IEPA. The laboratory data sheets and COCs for the December, 1993 and February, 1994 groundwater sampling events were included in the First and Second Quarterly Reports, submitted to IEPA January 27 and April 14, 1994, respectively. The unvalidated and validated results are summarized in Tables 8 and 9, respectively (these tables include laboratory results from pre-1993 investigations). Data validation procedures are presented in Appendix E. The results for the modified Appendix I analyses for monitoring well MW2 are summarized in Table 10. Historic static water level data and well construction information are summarized in Table 11.

5.3 RESULTS OF IN-SITU HYDRAULIC CONDUCTIVITY TESTING

The field data and calculation spreadsheets generated from the in-situ hydraulic conductivity testing are presented in Appendix I. Calculations of hydraulic conductivity were performed using the Bouwer-Rice method of slug test analysis for partially penetrating wells in unconfined aquifers. Results of the hydraulic conductivity calculations are summarized in Table 12

6. DATA EVALUATION AND DISCUSSION OF RESULTS

6.1 GENERAL

As specified in Items #5, #19 and #20 of the September 23, 1993 IEPA qualified approval letter, this section presents a discussion of the results of the Phase I investigation, including a description of the regional and site specific geology and hydrogeology, and evaluations of the extent and distribution of constituents identified in soil and groundwater.

6.2 GEOLOGIC AND HYDROGEOLOGIC EVALUATIONS

As stipulated in Item #21a in the September 23, 1993 IEPA qualified approval letter, a literature survey of regional geologic and hydrogeologic characteristics and local stratigraphy was submitted with the First Quarterly Report, dated January 27, 1994. The following sections include excerpts from the literature review, which have been modified or supplemented as necessary, based on information acquired since submittal of the First Quarterly Report.

6.2.1 Regional Geology

The City of Chicago lies in the Chicago Lake Plain subdivision of the Great Lakes Section of the Central Lowland Province (ISGS Circular 460, 1971). The Chicago Lake Plain was the bottom of glacial Lake Chicago, and covers an area of approximately 450 square miles, 90 percent of which is covered by built-up areas of Chicago and its suburbs (ISGS Circular 460, 1971).

The geomorphological features of the Chicago area are largely the result of glaciation. Cook County is covered by a variety of unconsolidated stratified and unstratified glacial drift, glaciofluvial, and glaciolacustrine deposits. The Chicago area contains mostly glaciolacustrine surface deposits, whereas surface deposits in the western, northern, and southwestern areas of Cook County consist of a series of glacial moraines. The glaciolacustrine deposits associated with the Chicago area consist mainly of moderately well sorted clay, silt, and sand. Chicago area glaciolacustrine deposits also contain some well-sorted beach ridges associated with former Lake Chicago shorelines.

Underlying the unconsolidated glacial deposits of Cook County are consolidated Devonian, Silurian, Pennsylvanian, Ordovician, and Cambrian deposits of limestone, dolomite, shale, coal, and sandstone. Virtually all outcrops in Cook County are of Niagaran dolomite of Silurian age. Consolidated deposits subcrop in proximity to the surface because they are situated on a regional northwest-southeast trending Paleozoic Era geologic high, the Kankakee Arch. The Kankakee Arch connects the Wisconsinan

Stage Arch (northwest) and Cincinnati Arch (southeast), and separates two large geologic depressions on either side, the Michigan Basin to the north and the Illinois Basin to the south. The gently sloping eastern flank of the Kankakee Arch dips to the east about ten to fifteen feet per mile in the Chicago area.

6.2.2 Site Geology

The site geology has been characterized by information from ten 1991 shallow on-site soil borings, regional supply wells and information from eight site borings installed in December, 1993. The 1991 borings were drilled to a depth of ten feet, with one boring extending to a depth of twenty feet. The seven shallow 1993 borings (SB4 through SB10) were characterized continuously to a maximum depth of twenty-one feet below grade, and one deep boring (SB5deep) was characterized continuously from twenty to sixty feet below grade.

Four vertical geologic profiles depicting the site stratigraphy are presented in Figures 8, 9, 10 and 11. (A map illustrating the horizontal traces of the profiles is presented in Figure 7.) Geologic profiles A-A' and B-B' are oriented east-west across the site, immediately south and north, respectively, of Tank Farm #3 and extending to the west side of Container Storage Area #1. Geologic profile C-C' trends north-south along the east side of Tank Farm #3 and geologic profile D-D' trends north-south along the west side of Container Storage Area #1.

The geologic profiles illustrate that over 60 feet of unconsolidated sand, silt, and clay of glaciolacustrine origin overlay consolidated deposits of the Paleozoic Era at the site. The unconsolidated deposits consist of an upper fill layer, between one and seven feet thick, composed of sand, gravel, soil, concrete, and wood debris. Below the fill layer there is an average of five to six feet (up to thirteen feet) of apparently indigenous clayey silt to silty clay. Based on the geologic information obtained from deep soil boring SB5deep, below approximately ten feet and down to approximately fifty-two feet below grade, soils grade from a silty clay into predominantly stiff, plastic dark-grayish brown finely-laminated clay, with trace to some coarser material consisting of silt, fine sand, and fine to coarse limestone/dolomite and shale gravel and clasts. Trace amounts of iron-sulfide sand-sized grains and a piece of undecomposed wood were documented in the clay, indicating that the clay was deposited in an oxygen-deficient (reducing) environment. A thin (less than 1 foot thick) saturated muddy sand is located at approximately 37 to 38 feet below grade. The horizontal extent of this saturated unit is unknown. Approximately fifteen inches of saturated, loose silty mud was encountered at 50.5 feet below grade. From approximately fifty-two to sixty feet below grade, soils are predominantly dark gray, very hard and stiff, slightly silty, finely-laminated lakebed clays, with some finely disseminated iron-sulfide grains and subangular to subrounded shale and limestone/dolomite gravel and clasts. Because of difficulty in driving the spilt-spoon through this very hard clay, no soil samples were recovered below sixty feet at the site to confirm the unconsolidated/consolidated contact, which was inferred to exist at approximately fifty feet below grade based on information from the deep regional supply well borings.

Figure 12 illustrates the interpreted distribution of the thickness of the fill layer. Figure 13 depicts the interpreted elevation of the top of the clayey silt zone, which is analogous to the elevation of the base of the fill zone. The interpreted elevation of the top of the clay/base of the clayey silt zone is represented in Figure 14. These figures generally indicate that a subsurface high exists in the vicinity of Tank Farm #3, where the elevations of both the top of the clayey silt unit and the lower clay unit are highest, and where the thickness of the overlying fill unit is thinnest. The clay elevation map indicates that another elevation high exists on the southern end of Container Storage Area #1. The two structural highs at the top of the lower clay unit appear to be separated by a linear low, which trends approximately north south through the center of the area of investigation. These elevation features at the top of the lower clay unit may influence the direction of groundwater flow at the site, as discussed in Section 6.3.2 below.

6.2.3 Regional Hydrogeology

The groundwater resources of Chicago and surrounding Cook County are developed from four aquifer or saturated systems: glacial drift saturated or water bearing units, shallow dolomite aquifers mainly of Silurian age, the Cambrian-Ordovician aquifer composed of the Galena-Platteville dolomite, St. Peter sandstone, and Ironton-Galesville sandstone formations, and the Mt. Simon aquifer consisting of the Mt. Simon-Eau Claire sandstone formations. Water wells exist in the city, but are used mainly for process and cooling water for industry. The City of Chicago obtains its potable water from Lake Michigan, withdrawing over one billion gallons per day (USGS, 1984).

The uppermost glacial drift water bearing unit is unconfined, and has common regional yields on the order of 1000 gpm, and an average transmissivity of about 330 feet²/day (USGS, 1988). Local conditions can vary significantly from the above estimates because glacial drift saturated units tend to be heterogeneous and anisotropic in nature.

The Chicago area is on the major drainage divide between waters that flow to the Gulf of St. Lawrence by way of the Great Lakes and those that flow to the Gulf of Mexico through the Illinois and Mississippi Rivers (ISGS, Circular 460, 1971). Nearby large surface water bodies probably function as regional recharge and discharge boundaries for the site. The south branch of the Chicago River is a possible regional recharge boundary two miles to the north of the site. Lake Michigan provides a regional discharge boundary four miles to the east of the site; however, man-made surface water diversions have reduced the area of drainage into Lake Michigan (ISGS Circular 460, 1971). Flow in the deep bedrock units tends to be mainly horizontal, from recharge areas to the west and north of the six-county metropolitan area (where rocks crop out at the surface or lie immediately below the glacial drift toward the structural basins in the south and east (ISGS Circular 460, 1971; USGS Professional Paper 1405, 1992).

6.2.4 Site Hydrogeology

The water table was encountered at approximately three to five feet below grade during the site investigations. In general, a shallow unconfined saturated unit exists at the site, which is comprised primarily of the clayey silt/silty clay unit underlying the non-indigenous fill layer. The water table extends up into the fill zone in parts of the investigation area. The base of the shallow saturated zone is defined by the clay unit which occurs at approximately ten feet below grade throughout the site. The saturated thickness of the shallow unconfined zone varies between approximately five and eight feet. The saturated thickness appears to be greatest in the vicinity of the north end of Container Storage Area #1, near monitoring wells MW8 and MW10, and in the vicinity of MW2 on the north side of Tank Farm #3. The saturated thickness generally is five to six feet throughout most of the investigation area.

According to static water level data collected in previous investigations (Canonie, 1991) from monitoring wells MW1, MW2, and MW3 and piezometers P1 through P4, groundwater flow in the shallow water table aquifer was determined to move across the site in an eastwardly direction, away from an apparent groundwater mound in the vicinity of Tank Farm #3. The static water level data collected during the RFI are consistent with the 1991 data on the west side of the site, and provide additional information to the east and south. Figures 15, 16 and 17 illustrate preliminary interpretations of the water table surface for December 16, 1993, February 14, 1994 and May 25, 1994, respectively. These figures are preliminary because the February, 1994 potentiometric surface differs somewhat from the December, 1993 and May, 1994 interpretations, and because subsurface structures are known to exist at the site, which may influence groundwater flow direction. The locations and extent of these subsurface structures has not been determined from the available information. The potentiometric surface maps will be modified, if necessary, based on any newly acquired information.

The interpreted static level data indicates that groundwater flow direction in the shallow saturated zone varies across the site. In addition, flow directions appear to change seasonally in response to precipitation. A water table mound appears to exist consistently in the vicinity of Tank Farm #3, and, to the east of this water table mound, groundwater flow appears to converge from the east, south and west towards Tank Farm #2 and away from Container Storage Area #1. The potentiometric surface maps indicate that the direction of groundwater flow ultimately moves to the north, away from the vicinity of Tank Farm #2; however, additional information is needed to the north of Tank Farm #2 to confirm this initial interpretation.

The December 1993 static water level data indicate that the shallowest water table elevation exists in the vicinity of piezometer P1 (which is screened at the water table in the upper portion of the saturated zone, inside the remains of the demolished dike wall); however, this could not be confirmed during the February and May, 1994 sampling events because of an obstruction in P1 that prevented data collection. The apparent mounding of the water table at P1 could be due to factors including (1) the presence of vertical

groundwater gradients, (2) the surrounding influence of the foundation of former dike wall around Tank Farm #3, and/or (3) influence from the underlying structural high at the top of the lower clay unit. These issues will be investigated further during future investigations, as recommended in Section 7.2 of this report.

The deepest water table elevation at the site occurred in the vicinity of MW1, as determined from the December, 1993 and May, 1994 static level data. During the February, 1994 sampling event, the deepest water table elevation at the site shifted to the vicinity of MW10. The February 14, 1994 water table was approximately 1.5 feet higher at MW1 than in the December, 1993 and May, 1994 sampling events, and approximately 1.5 feet lower at MW10 than in the December, 1993 and May, 1994 sampling events. The February static level data for MW4, MW5 and MW9 was over one foot lower than corresponding well data collected in December, 1993 and May, 1993. Seasonal variations may account for the differences in the February, 1994 static level data; however, the database is not extensive enough at this time to evaluate seasonal trends to the water table. Alternatively, the unusually cold winter in 1994, combined with the proximity of the water table to the frost line, may have resulted in anomalous perturbations in the groundwater flow field. Despite the differences in the February, 1994 static level data relative to the other data sets, preliminary interpretations indicate that the general trends to the potentiometric surface are consistent, and appear to reflect the subsurface elevation of the top of the lower clay unit.

The private sewer line that runs parallel to the western side of the site in the alley between Safety-Kleen and Ashland Cold Storage is another buried obstruction that may influence the direction of groundwater flow at the site. No information is available from City of Chicago personnel about the history, dimensions and construction of this sewer. The December 1993 static water level data from the two monitoring wells that straddle the sewer line (MW4 and MW-5) preliminarily indicated that water levels were slightly lower in the vicinity of the sewer, relative to water levels in monitoring wells immediately adjacent to the east side of the alley (MW2 and MW9); however, this was not confirmed by either the February or May, 1994 data sets.

Yields and transmissivities in the vicinity of the CRC are much lower than regional estimates. With the exceptions of monitoring wells MW8 and MW10, all site monitoring wells bailed dry during development and purging prior to sampling, and recovered slowly. Based on soil type, the hydraulic conductivity's of the silt and clay layers beneath the site were expected to be less than 10^{-3} cm/sec (21 gpd/ft²). The results of the in-situ hydraulic conductivity tests indicate local hydraulic conductivity values in the range of 2.67×10^{-4} to 2.97×10^{-4} cm/sec in the vicinity of MW9; 4.26×10^{-4} to 8.16×10^{-4} cm/sec in the vicinity of MW8 (Container Storage Area #1); and approximately 2.46×10^{-5} in the vicinity of MW2 (Tank Farm #3). The result of the laboratory permeability test conducted on the clay sample collected from soil boring SB10 indicates an average hydraulic conductivity value of 2.4×10^{-8} cm/sec in the clay interval from 14.5 to 15 feet below grade at SB10/MW10. Literature values of hydraulic conductivities measured in

silts generally range from 0.2 to 21 gpd/foot² (9.43×10^{-6} to 9.9×10^{-4} cm/sec), and in clays range from 0.0002 to 0.2 gpd/foot² (9.43×10^{-9} to 9.43×10^{-6} cm/sec) (Fetter 1988); therefore, the hydraulic conductivity tests results are consistent with values characteristic of the soil types encountered at the site.

Due to the presence, thickness and low hydraulic conductivity of the lower clay unit, the hydraulic communication, if any, between the local glacial drift water bearing unit and the underlying regional dolomite aquifer is likely poor. The results of the soils tests indicate soils impacts appear to be present down to a depth of twenty feet below grade, or approximately ten feet into the lower clay unit (see discussion in Section 6.4.1 below).

6.3 DETECTED CHEMICALS, EXTENT AND DISTRIBUTION

The following sections discuss the types of organic and inorganic chemicals that were detected in soils and groundwater during the site investigations, and their extent and distribution, as determined from the data collected to date. In addition, the results are discussed relative to the SWMU areas, as required by Items #7, #5a, #5g and #190 in the September 23, 1993 IEPA qualified approval letter.

6.3.1 Chemicals Detected in Soil

General Organic compounds were detected in soil samples collected off the northwest corner of Tank Farm #3, along the north and west side of Container Storage Area #1, and in the southwest corner of the CRC property. No inorganic compounds were detected in the soil TCLP samples with the exception of barium, which is a metal that naturally occurs in Illinois soils at concentrations as high as 805 mg/kg (ISGS, personal communication). Table 13 lists the compounds that were detected during all soils investigations, and the concentrations and occurrences of these detected compounds. Some of the 1993 values summarized in Table 13 are approximations, which correspond to the J-qualifiers found in Tables 6 and 7. The additional data qualifiers in Table 7 are defined by the QA/QC validation procedures outlined in Appendix E. Some of these additional qualifiers resulted from the necessity of the laboratory to re-analyze some of the soils samples several times to achieve the lowest possible reporting limits. Holding times were exceeded for some of the final soils re-analyses because of the number of tests that were required to quantify those soils containing higher concentrations of organic compounds; however, the analyses were otherwise normal and the data can be used confidently.

In general, the horizontal extent of chemicals detected in soils has been determined along the southern and western side of the area of investigation. The soils in the area north of Tank Farms #2 and #3 and Container Storage Area #1, and in the central and eastern sections of the area of investigation indicate that volatile and semi-volatile organic compounds are present in the soil and groundwater. The vertical extent of chemicals detected in soils appears to occur down to approximately twenty feet below grade throughout most of the area of investigation; however, additional confirmatory sampling is needed north of Container Storage Area #1.

Summary of Organic Compounds Detected in Soils Twenty-four of the 36 total VOC analytes and twenty-eight of the 69 total SVOC analytes were detected in site soil samples collected in 1993, as listed in Table 13.

VOCs

Detected VOCs in soils consisted of chlorinated and non-chlorinated hydrocarbons. The highest concentration of total VOCs that occurred in a single soil sample was detected in SB8 (17.5'-18.5') at 326 mg/kg, and the lowest total VOC concentration occurred in SB5 (18.5'-20'), which was non-detected for VOCs. The next highest total VOC concentrations were significantly lower, ranging from 31 mg/kg to less than 50 mg/kg in SB4 (5'-6'), SB7 (11.5'-12'), SB8 (19.5'-20') and SB10 (17.5'-18.5'). Total VOC concentrations ranged from 4 mg/kg to less than 10 mg/kg in SB4 (16.5'-17'), SB7 (8'-8.5'), SB8 (7.5'-8.5') and SB10 (7.5'-9'). Total VOCs were detected at concentrations less than or equal to 0.12 mg/kg in SB4 (17'-18'), SB5 (8.5'-9.5'), SB5 (18.5'-20'), SB6 (6'-7'), SB6 (17.5'-18.5'), SB9 (8'-9'), SB9 (17.5'-18') and SB9 (18'-19').

SVOCs

The highest concentrations of total SVOCs occurred in SB4, (5'-6'), SB7 (8'-8.5') and SB8 (7.5'-8.5'), at 12 mg/kg, 10 mg/kg and 12 mg/kg, respectively. Soil borings samples SB7 (11.5'-12'), SB7 (12.5'-13'), SB9 (8'-9') and SB10 (7.5'-9') had total SVOCs concentrations ranging between 2.7 and 5.4 mg/kg. Total SVOCs were less than or equal to 0.42 mg/kg in SB4 (17'-18'), SB5 (8.5'-9.5'), SB5 (9.5'-10'), SB6 (6'-7'), SB6 (17.5'-18.5'), SB8 (17.5'-18.5') and SB9 (18'-19'). SVOCs were not detected in soil samples SB5 (18.5'-20'), SB8 (19.5'-20') and SB10 (17.5'-18.5').

Summary of Inorganic Compounds Detected in Soils The RFI results of the soils TCLP extract analyses indicate that barium was the only metal detected above reporting limits. These detections of barium occurred in soil samples SB4 (17'-18'), SB5(18.5'-20'), SB6 (17.5'-18.5'), SB7 (11.5'-12'), SB7 (12.5'-13') and SB9 (8'-9'), at concentrations of 0.72 mg/l, 0.75 mg/l, 1.3 mg/l, 0.69 mg/l, 0.87 mg/l and 1.8 mg/l, respectively. Barium is not a compound handled by Safety-Kleen, and naturally occurring levels of barium have been detected between 395 to 805 mg/kg in Illinois soils (ISGS,

MW2, benzyl alcohol, 1,2-dichlorobenzene, 4-methylphenol, 2,6-dinitrotoluene and acetophenone were detected only once out of three sampling events and the concentrations of 2-methylphenol, benzoic acid, pyridine, 3-picoline, 1-methyl-2-pyrrolidinone and N,N-dimethylacetamide have varied.

Sixteen VOCs and four SVOCs were detected in groundwater samples collected from MW4, located immediately west of MW2. Twelve of the twenty-one VOCs historically detected in MW2 were detected in groundwater samples collected from MW4. These compounds are: vinyl chloride, methylene chloride, 1,1-DCA, 1,2-DCE (total), chloroform, 2-butanone, 1,2-dichloropropane, TCE, benzene, toluene, ethylbenzene and total xylenes. In addition, chloromethane, 4-methyl-2-pentanone and tetrahydrofuran were detected in MW4 in the first two quarterly sampling events, and chloroethane was detected in MW4 in the Second Quarter sampling event. Four of the eleven SVOCs historically detected in MW2 have been detected in MW4: 4-methylphenol, 3-picoline, 1-methyl-2-pyrrolidinone and N,N-dimethylacetamide.

Further south and west of MW4, low concentrations of three VOCs were detected in MW5: 1,1-DCA at up to 0.016 mg/l, benzene at approximately 0.003 mg/l and tetrahydrofuran at up to 0.096 mg/l. No SVOCs were detected in MW5 during the RFI sampling events. therefore, a southwestern limit to groundwater chemicals appears to exist in the vicinity of MW5.

Northeast of MW2 (north of and between Tank Farms #2 and #3), six VOCs (acetone, 1,2-DCE (total), benzene, 4-methyl-2-pentanone, toluene and tetrahydrofuran) and fourteen SVOCs (phenol, 2-methylphenol, 4-methylphenol, 2,4-dimethylphenol, naphthalene, 2-methylnaphthalene, acenaphthene, dibenzofuran, fluorene, phenanthrene, pyridine, 3-picoline, 1-methyl-2-pyrrolidinone and N,N-dimethylacetamide) have been detected historically in MW3. Four of the six VOCs and six of the fourteen SVOCs correspond to compounds detected in groundwater samples collected from MW2. Of the six VOCs detected in MW3, benzene generally has decreased in concentration over time. Of the twenty organic compounds detected in MW3, acetone, tetrahydrofuran, pyridine, 3-picoline, 1-methyl-2-pyrrolidinone and N,N-dimethylacetamide generally have increased in concentration over time.

South of Tank Farm #2, fifteen VOCs and eight SVOCs were detected historically in groundwater samples collected from MW1. Of the fifteen VOCs, those that generally have decreased in concentration over time are vinyl chloride, chloroethane, methylene chloride, acetone, 1,1-DCA, 1,2-DCE (total), benzene and toluene; whereas, tetrahydrofuran has varied in concentration over time. Methylene chloride, acetone, 1,1,1-TCA, 4-methyl-2-pentanone, PCE, xylenes and ethylbenzene were detected only once in three sampling events.

In the southwest corner of the area of investigation, nine VOCs and three SVOCs were detected at low concentrations (less than 0.6 mg/l) in MW9. The more highly concentrated VOC detected in MW9 was approximately 0.5 mg/l tetrahydrofuran;

whereas the other eight VOCs were detected at concentrations less than 0.08 mg/l. The three SVOCs detected in MW9 are: approximately 0.001 mg/l bis(2-ethylhexyl)phthalate (detected in the First Quarter sampling event) and up to 0.015 mg/l 3-picoline and up to approximately 0.007 mg/l 1-methyl-2-pyrrolidinone (both detected during the First and Second Quarter sampling events).

RFI Groundwater Results in the Vicinity of Container Storage Area #1 The Phase I results indicate that the area in the vicinity of the Container Storage Area #1 SWMU may be a source of constituents in soils and groundwater at the CRC. The highest concentrations of chemicals in groundwater occur in the northwestern end of this SWMU area, in the vicinity of monitoring well MW8. Up to twenty VOCs and up to six SVOCs were detected in MW8 during the first two quarterly sampling events. Of the detected VOCs, the concentrations of vinyl chloride, methylene chloride, 1,1-DCA, toluene and tetrahydrofuran were consistent between the two sampling events; the concentrations of acetone, 1,2-DCE (total), 1,1,1-TCA and trichlorofluoroethane increased between the two sampling events; and the concentrations of 1,1-DCE, chloroform, 1,2-DCA, 2-butanone, carbon tetrachloride, TCE, benzene, PCE, chlorobenzene decreased between the two sampling events.

Fewer organic compounds were detected in groundwater samples collected further to the south along the west side of Container Storage Area #1. Up to fourteen VOCs and up to eight SVOCs were detected in monitoring well MW10. Up to fourteen VOCs and up to eight SVOCs were detected in monitoring well MW7. All of the VOCs detected in MW8 were detected in MW7 and/or MW10, with the exception of 1,1-DCE, chloroform, 1,2-DCA, carbon tetrachloride, TCE, PCE and chlorobenzene. Chloroethane and ethylbenzene are two additional VOCs that were detected in both MW7 and MW10 that were not detected in MW8. All of the SVOCs detected in MW8 were detected in MW7 and/or MW10, with the exception of isophorone. Phenol, 2-methylphenol, 2,4-dimethylphenol, benzoic acid, naphthalene and 4-chloro-3-methylphenol are additional SVOCs that were detected in either MW7 and/or MW10 that were not detected in MW8.

Data from the first quarter sampling event indicates that the only VOC present in groundwater is 6 mg/l tetrahydrofuran in the vicinity of monitoring well MW6. Approximately 0.66 mg/l 3-picoline is the only SVOC detected in MW6. These results (and groundwater flow patterns) indicate that the southern extent of chemicals in groundwater on the west side of Container Storage Area #1 is in the vicinity of monitoring well MW6.

7. CONCLUSIONS AND RECOMMENDATIONS

7.1 CONCLUSIONS

The following conclusions are drawn from the results of the RFI:

- The objectives of the Phase I RFI were achieved: chemical constituents are present in the vicinities of Tank Farms #2 and #3, and Container Storage Area #1; preliminary Phase II information was collected regarding the extent and distribution of chemicals in soils and groundwater at the site; and the extent and distribution of fill material present in the area of investigation has been determined.
- Groundwater flow directions vary across the site and appear to be related to the subsurface structure of the clay unit underlying the saturated zone. Significant variations in groundwater flow direction due to seasonal changes or responses to precipitation are indicated.
- Soils at the site are comprised of approximately one to seven feet of non-indigenous fill or topsoil material, underlain by up to thirteen feet of clayey silt/silty clay material which grades downward into a laterally extensive stiff, dark-grayish brown finely-laminated lakebed clay. The top of the clay unit occurs at an average depth of ten feet below grade across the area of investigation. The clay exists as deep as sixty feet below grade at the western side of the site, in the vicinity of SB5/MW5, and contains a thin saturated muddy silt zone at approximately 37 to 38 feet below grade and a thin saturated silty mud zone at 50.5 feet below grade.
- The horizontal extent of the non-indigenous fill zone occurred throughout the area of investigation. The fill material is thinnest in the vicinity of Tank Farm #3, where it overlies a subsurface mounding in the clayey silt/silty clay zone and the lower clay unit.
- A water table exists at approximately 3 to 5 feet below grade at the site. The shallow, unconfined saturated zone below the water table is comprised of the fill material and clayey silt to silty clay soils overlying the lower clay unit.
- The shallow saturated zone is not used as an aquifer at the site, and no water withdrawal wells are known to exist within 1500 feet of the CRC.
- Hydraulic conductivity values for the saturated clayey silt/silty clay zone range from 2.46×10^{-5} cm/sec to 8.16×10^{-4} cm/sec, and an average hydraulic conductivity value for the clay is 2.4×10^{-8} cm/sec.

- Regional bedrock aquifers underlie the lower clay unit. There is no evidence that chemicals resulting from site releases are present in the bedrock aquifers.
- Chemical constituents were detected in shallow soils and groundwater in the vicinities of the SWMU areas: VOCs and SVOCs and some metals (comparable to Illinois background levels) were detected in soils and groundwater samples; no PCBs, sulfides, cyanide, dioxins, furans were detected in groundwater samples collected from monitoring well MW2.
- Further investigations are needed to determine northern and eastern horizontal extent and distribution of chemicals in soils and groundwater; the southern and western extents are fairly well defined.
- The vertical distribution of soils (and groundwater) impacts is fairly well defined, and is limited to a depth of 20 feet below grade throughout most of the area of investigation. Some additional confirmatory sampling is needed in the vicinity of Container Storage Area #1.

7.2 RECOMMENDATIONS FOR ADDITIONAL SITE ACTIVITIES

Additional activities are proposed for the CRC to supplement the hydrogeological information obtained from the Phase I RFI and to further determine the extent and distribution of chemicals in soil and groundwater.

7.2.1 Proposed Phase II Hydrogeological Investigations

Phase II investigations are recommended to better define potential influences to groundwater flow direction, to determine site characteristics and extent and distribution of chemicals in soil and groundwater north of the Phase I area of investigation. The proposed additional activities are:

- continued quarterly monitoring of static water level data from existing site wells;
- installation of several piezometer clusters to determine the presence of vertical groundwater gradients in the saturated zone in the vicinity of Tank Farm #3;
- one-day pumping test to determine the feasibility of long-term pumping in the shallow saturated zone;
- rapid screening analyses to characterize the extent of chemicals in soil and groundwater on the northern and eastern sides of the area of investigation and to aid in the placement of additional monitoring wells, if necessary;

- installation and sampling of additional monitoring wells, if necessary.

Continued quarterly monitoring of static water levels in existing site wells would help to determine potential seasonal influences to groundwater flow direction. In addition, several piezometers can be installed as clusters to monitoring wells and piezometers in the vicinity of the groundwater mound located at Tank Farm #3, to collect vertical groundwater gradient information. A one-day pump test in the vicinity of Tank Farm #2 and west of Container Storage Area #1 would provide preliminary hydrogeologic information to further characterize the response of the saturated unit to stress.

Additional information is required to further define the vertical and horizontal limits of soils and groundwater impacts detected at the site. The proposed activities to accomplish this objective are designed to take into account the problems and limitations recognized during the Phase I investigation activities, and to collect the required information expeditiously and cost effectively. Specifically, the additional information would be collected in a two-part approach: the first part would consist of a geoprobe investigation to preliminarily determine onsite the extent and distribution of soils and groundwater impacts; and, the second part of the investigation would consist of confirmatory soils and groundwater sampling and laboratory analysis once the vertical and horizontal limits of site impacts have been determined from the geoprobe results. A geoprobe equipped with a field GC is an effective mechanism to rapidly acquire extensive and fairly reliable VOC screening data for soils and groundwater. The use of an onsite GC for field screening would eliminate the problems encountered with the PID, provide quantitative soils and groundwater data throughout the CRC within a few days, and minimize the potential of resorting to high reporting limits during the confirmatory laboratory sampling phase.

Both the horizontal and vertical extent of soils and groundwater impacts would be investigated with the geoprobe. Once the vertical and horizontal limits have been determined preliminarily by the geoprobe investigation, additional confirmatory soils and groundwater samples would be collected and analyzed at a laboratory. Additional monitoring wells will be proposed, if necessary, based on the results of the geoprobe and confirmatory sampling investigations.

Safety-Kleen proposes to prepare a work plan for the Phase II investigations to include descriptions of the activities proposed above, upon receipt of IEPA's comments on or approval of these recommendations.

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**TABLE 1. Chronological Summary of RFI Activities and Cost
Safety-Kleen Chicago Recycle Center**

<u>Date</u>	<u>Report/Activity</u>	<u>Cost</u>
May 3, 1993	RCRA Facility Investigation Phase I Workplan	\$10,319
September 23, 1993	IEPA Approval Letter (qualified)	---
October 18, 1993	Literature Review/Use of the Bouwer and Rice Slug Test Method for Field Determination of Hydraulic Conductivity at the Safety-Kleen CRC (LTI letter to Lawrence Eastep)	\$5,400
November 5, 1993	Confirmed Work Plan Modifications (verbal)	\$4,572
December 6-9, 1993	Installation of soil borings and monitoring wells (SB/MW-4, -5, -6, -7, -8, -9, -10 and SB-4deep)	\$43,947
December 9-21, 1993	Monitoring well development (MW-4, -5, -6, -7, -8, -9, -10)	\$3,500
December 20-21, 1993	First round groundwater sampling (VOCs/SVOCs) (MW-1, -2, -3, -4, -5, -6, -7, -8, -9, -10)	\$13,146
December 20, 1993	IEPA approval of work plan modifications (letter)	---
December 14, 1993- January 7, 1994	Surveyed locations and elevations of monitoring wells (MW-1, -2, -3, -4, -5, -6, -7, -8, -9, -10)	\$1,925
January 27, 1994	First Quarterly Report	\$3,519
February 13-16, 1994	Second round groundwater sampling (VOCs/SVOCs/App D) (MW-1, -2, -3, -4, -5, -7, -8, -9, -10)	\$11,340
February 14-16, 1994	In-situ hydraulic conductivity testing (MW-2, -8, -9)	\$3,423
April 14, 1994	Second Quarterly Report	\$1,401
May 26-27, 1994	Third round groundwater sampling (VOCs/SVOCs) (MW-1, -2, -3, -4, -5, -6, -7, -8, -9, -10)	\$8,159
May, 1993-June, 1994	Data evaluation/RFI Report	\$5,222

TABLE 2. SOIL BORING SCREENING RESULTS, Safety-Kleen Chicago Recycle Center

Soil Boring	Split Spoon Interval	background pid (ppm)	soil pid (ppm)	recovery (inches)	samples sent to lab	Soil Boring	Split Spoon Interval	background pid (ppm)	soil pid (ppm)	recovery (inches)	samples sent to lab
SB4	2'-4'	0.6	2.5	14		SB8	1'-3'	0.3	0.7	11	
	4'-6'	0.6	10.0	15	x		3'-5'	0.6	1.7	18	
	6'-8'	2.1	4.3	15			5'-7'	0.8	1.4	20	
	8'-10'	2.1	4.6	15			7'-9'	0.8	2.1	22	x
	10'-12'	2.1	4.2	19			9'-11'	1.0	1.5	21	
	12'-14'	2.1	4.6	15			11'-13'	1.5	1.5-4.5	24	
	14'-16'	2.1	---	nr			13'-15'	1.4	2.1	24	
	16'-18'	2.1	2.9	24	x		15'-17'	1.4	3.7	24	
	18'-20'	2.1	2.9	7			17'-19'	1.6	10-12	24	x
							19'-21'	1.6	7-13	20	x
Soil Boring SB5	2'-4'	0.8	1.3	15		Soil Boring SB9	1'-3'	0.4	1.3	14	
	4'-6'	1.2	1.6	19			3'-5'	1.6	1.9	15	
	6'-8'	1.4	1.7	19			5'-7'	1.6	2.3	15	
	8'-10'	1.7	2.1	20	x		7'-9'	1.6	2.5	18	x
	10'-12'	1.8	2.2	15			9'-11'	1.6	2.3	20	
	12'-14'	2.0	2.5	18			11'-13'	1.7	2.4	21	
	14'-16'	2.1	2.7	18			13'-15'	1.8	2.5	17	
	16'-18'	2.1	2.7	17			15'-17'	1.8	2.3	24	
	18'-20'	2.1	3.1	20	x		17'-19'	1.8	2.3	21	x
Soil Boring SB6	1'-3'	0.3	0.4	10		Soil Boring SB10	1'-3'	4.1	6.3	12	
	3'-5'	0.3	---	4			3'-5'	4.1	6.0	9	
	5'-7'	0.4	1.3	15	x		5'-7'	3.7	4.3	24	
	7'-9'	0.4	1.0	17			7'-9'	3.5	6.9	23	x
	9'-11'	---	1.2	16			9'-11'	3.3	4.1	18	
	11'-13'	0.7	---	nr			11'-13'	3.3	5.1	15	
	13'-15'	0.9	1.2	6			13'-15'	3.1	3.7	22	x*
	15'-17'	0.9	nr	16			15'-17'	3.1	3.3	24	
	17'-19'	1.1	1.6	24	x		17'-19'	3.2	4.4	24	x
Soil Boring SB7	1'-3'	0.5	1.1	13		Soil Boring SB5-deep	20'-22'	2.4	2.8-3.0	10	
	3'-5'	2.2	---	Int obstruction			22'-24'	2.8	3.1	20	
	5'-7'	3.5	4.5	11			24'-26'	3.0	3.3	24	
	7'-9'	4.3	4.5	17	x		26'-28'	3.1	3.2	24	
	9'-11'	4.6	4.9	15			28'-30'	3.1	3.7	22	
	11'-13'	5.0	4.9	22	x		30'-32'	3.1	3.3	24	
	13'-15'	5.0	5.0	12			32'-34'	3.3	4.0	24	
							34'-36'	3.2	up to 7.2	24	
							36'-38'	2.8	3.3	20	
							38'-40'	2.9	3.1	24	
							40'-42'	2.9	3.0	24	
							42'-44'	2.9	3.2	24	
							44'-46'	3.0	3.9	24	
							46'-48'	2.8	3	24	
							48'-50'	2.7	3.5	24	
							50'-52'	2.3	2.7	24	
							52'-54'	2.1	2.6	24	
							54'-56'	2.4	2.9	24	
							56'-58'	2.4	2.7	24	
							58'-60'	2.4	2.9	24	

* permeability test

nr = no recovery

TABLE 3. SUMMARY OF DECEMBER, 1993 SOIL SAMPLE COLLECTIONS AND ANALYSES, Safety-Kleen Chicago Recycle Center

Soil Boring	Interval (feet)	VOC Analysis	SVOC and Metals Analyses	Permeability Test	Soil Boring	Interval (feet)	VOC Analysis	SVOC and Metals Analyses	Permeability Test
SB4	5-5.5	x			SB8	7.5-8	x		
	5.5-6		x			8-8.5		x	
	16.5-17	x				17.5-18	x		
	17-17.5 (DUP4)	x				18-18.5		x	
	17.5-18		x			19.5-20	x		
						20-20.5		x	
SB5	8.5-9	x			SB9	8-8.5	x		
	9-9.5		x			8.5-9		x	
	9.5-10 (DUP3)		x			17.5-18	x		
	18.5-19	x				18-18.5 (DUP1)	x		
	19-20		x			18.5-19		x	
SB6	6-6.5	x			SB10	7.5-8	x		
	6.5-7		x			8-9		x	
	17.5-18	x				14.5-15			x
	18-18.5		x			17.5-18	x		
						18-18.5		x	
SB7	8-8.5	x							
	8.5-9		x						
	11.5-12	x							
	12-12.5		x						
	12.5-13 (DUP5)		x						

TABLE 4. LIST OF ORGANIC COMPOUND ANALYTES FOR SOIL AND GROUNDWATER
(Safety-Kleen Chicago Recycle Center)

VOLATILE ORGANIC COMPOUNDS	SEMI-VOLATILE ORGANIC COMPOUNDS
Chloromethane	Phenol
Bromomethane	bis(2-Chloroethyl) ether
Vinyl Chloride	2-Chlorophenol
Chloroethane	1,3-Dichlorobenzene
Methylene Chloride	1,4-Dichlorobenzene
Acetone	Benzyl alcohol
Carbon Disulfide	1,2-Dichlorobenzene
1,1-Dichloroethene	2-Methylphenol
1,1-Dichloroethane	bis(2-Chloroisopropyl) ether
1,2-Dichloroethene (total)	4-Methylphenol
Chloroform	N-Nitroso-Di-n-propylamine
1,2-Dichloroethane	Hexachloroethane
2-Butanone	Nitrobenzene
1,1,1-Trichloroethane	Isophorone
Carbon Tetrachloride	2-Nitrophenol
Vinyl Acetate	2,4-Dimethylphenol
Bromodichloromethane	Benzoic acid
1,2-Dichloropropane	bis(2-Chloroethoxy)methane
cis-1,3-Dichloropropene	2,4-Dichlorophenol
Trichloroethene	1,2,4-Trichlorobenzene
Dibromochloromethane	Naphthalene
1,1,2-Trichloroethane	4-Chloroaniline
Benzene	Hexachlorobutadiene
Trans-1,3-Dichloropropene	4-Chloro-3-Methylphenol
Bromoform	2-Methylnaphthalene
4-Methyl-2-pentanone	Hexachlorocyclopentadiene
2-Hexanone	2,4,6-Trichlorophenol
Tetrachloroethene	2,4,5-Trichlorophenol
1,1,2,2-Tetrachloroethane	2-Chloronaphthalene
Toluene	2-Nitroaniline
Chlorobenzene	Dimethyl Phthalate
Ethylbenzene	Acenaphthylene
Styrene	2,6-Dinitrotoluene
Total Xylenes	3-Nitroaniline
Tetrahydrofuran	Acenaphthene
Trichlorotrifluoroethane	2,4-Dinitrophenol

TABLE 5. LIST OF APPENDIX I ANALYTES FOR MW2, SECOND QUARTER SAMPLING EVENT
(Safety-Kleen Chicago Recycle Center)

VOLATILE ORGANIC COMPOUNDS	SEMI-VOLATILE ORGANIC COMPOUNDS	PCBs
Chloromethane	Phenol	Benzo(k)fluoranthene
Bromomethane	bis(2-Chloroethyl)ether	Benzo(a)pyrene
Vinyl Chloride	2-Chlorophenol	Indeno(1,2,3-cd)pyrene
Chloroethane	1,3-Dichlorobenzene	Dibenzo(a,h)anthracene
Methylene Chloride	1,4-Dichlorobenzene	Benzo(e,h,i)perylene
Acetone	Benzyl alcohol	1,4-Dioxane
Carbon Disulfide	1,2-Dichlorobenzene	Methyl methacrylate
1,1-Dichloroethene	2-Methylphenol	Pyridine
1,1-Dichloroethane	bis(2-Chloroisopropyl)ether	N-Nitrosodimethylamine
1,2-Dichloroethene (total)	4-Methylphenol	Ethyl methacrylate
Chloroform	N-Nitroso-Di-n-propylamine	2-Picoline
1,2-Dichloroethane	Hexachloroethane	N-Nitrosomethylethylamine
2-Butanone	Nitrobenzene	Methyl methanesulfonate
1,1,1-Trichloroethane	Isophorone	N-Nitrosodiethylamine
Carbon Tetrachloride	2-Nitrophenol	Ethyl methanesulfonate
Vinyl Acetate	2,4-Dimethylphenol	Aniline
Bromodichloromethane	Benzoic acid	Pentachloroethane
1,2-Dichloropropane	bis(2-Chloroethoxy)methane	3-Methylphenol
cis-1,3-Dichloropropene	2,4-Dichlorophenol	N-Nitrosopyrrolidine
Trichloroethene	1,2,4-Trichlorobenzene	Acetophenone
Dibromochloromethane	Naphthalene	N-Nitrosomorpholine
1,1,2-Trichloroethane	4-Chloroaniline	o-Toluidine
Benzene	Hexachlorobutadiene	N-Nitrosopiperidine
Trans-1,3-Dichloropropene	4-Chloro-3-methylphenol	a,a-Dimethylphenethylamine
Bromoform	2-Methylnaphthalene	2,6-Dichlorophenol
4-Methyl-2-pentanone	Hexachlorocyclopentadiene	Hexachloropropene
2-Hexanone	2,4,6-Trichlorophenol	p-Phenylenediamine
Tetrachloroethene	2,4,5-Trichlorophenol	N-Nitroso-di-n-butylamine
1,1,2,2-Tetrachloroethane	2-Chloronaphthalene	Safrole
Toluene	2-Nitroaniline	1,2,4,5-Tetrachlorobenzene
Chlorobenzene	Dimethylphthalate	Isosafrole
Ethylbenzene	Acenaphthylene	1,4-Naphthoquinone
Styrene	2,6-Dinitrotoluene	1,3-Dinitrobenzene
Xylene (total)	3-Nitroaniline	Pentachlorobenzene
Acrolein	Acenaphthene	1-Naphthylamine
Acrylonitrile	2,4-Dinitrophenol	2-Naphthylamine
Trichlorofluoromethane	4-Nitrophenol	2,3,4,6-Tetrachlorophenol
Dichlorodifluoromethane	Dibenzofuran	1,3,5-Trinitrobenzene
Acetonitrile	2,4-Dinitrotoluene	Diallyl
Iodomethane	Diethylphthalate	Phenacetin
Propionitrile (Ethyl Cyanide)	4-Chlorophenyl-phenylether	Diphenylamine
3-Chloropropene	Fluorene	5-Nitro-o-toluidine
Methacrylonitrile	4-Nitroaniline	4-Aminobiphenyl
Dibromomethane	4,6-Dinitro-2-methylphenol	Promamide
Isobutyl alcohol	N-Nitrosodiphenylamine (1)	2-sec-Butyl-4,6-dinitrophenol
1,2-Dibromooethane	4-Bromophenyl-phenylether	Pentachloronitrobenzene
1,1,1,2-Tetrachloroethane	Hexachlorobenzene	4-Nitroquinoline-1-oxide
1,2,3-Trichloropropane	Pentachlorophenol	Methapyrene
trans-1,4-Dichloro-2-butene	Phenanthrene	Avanite
1,2-Dibromo-3-chloropropane	Anthracene	Chlorobenzilate
2-Chloro-1,3-Butadiene	Di-n-Butylphthalate	p-Dimethylaminazoobenzene
Trichlorotrifluoroethane	Fluoranthene	3,3'-Dimethylbenzidine
Tetrahydrofuran	Pyrene	2-Acetylaminofluorene
Methylmethacrylate	Butylbenzylphthalate	7,12-Dimethylbenzo(a)anthracene
Ethylmethacrylate	3,3'-Dichlorobenzidine	Hexachlorophene
Pentachloroethane	Benzo(a)anthracene	3-Methylcholanthrene
	Chrysene	3-Picoline
	bis(2-Ethylhexyl)phthalate	1-Methyl-2-pyrrolidinone
	Di-n-Octyl phthalate	N,N-Dimethylacetamide
	Benzo(b)fluoranthene	

INORGANICS

Cyanide, Total
Sulfide
Silver, Total
Arsenic, Total
Barium, Total
Beryllium, Total
Cadmium, Total
Cobalt, Total
Chromium, Total
Copper, Total
Mercury, Total
Nickel, Total
Lead, Total
Antimony, Total
Selenium, Total
Tin, Total
Thallium, Total
Vanadium, Total
Zinc, Total

TABLE 6:
SOIL ANALYTICAL RESULTS
 SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	B1			B1			B2			B2			B3			B3			B3			B4			B4		
SAMPLING DATE	10/22/91			10/22/91			10/22/91			10/22/91			10/23/91			10/23/91			10/23/91			10/23/91			10/23/91		
SAMPLING DEPTH/INTERVAL	2'-4'			4'-6'			2'-4'			8'-10'			6'-8'			8'-10'			10'-12'			6'-8'			8'-10'		
METALS - TCLP (mg/l)																											
Silver																											
Arsenic																											
Barium																											
Cadmium																											
Chromium																											
Mercury																											
Lead																											
Selenium																											
VOLATILE ORGANICS (mg/kg)	RL	flag		RL	flag		RL	flag		RL	flag		RL	flag		RL	flag		RL	flag		RL	flag		RL	flag	
Chloromethane	ND	0.012	U	ND	0.013	U	ND	0.015	U	ND	0.066	U	ND	0.013	U	ND	0.062	U	ND	0.013	U	ND	0.012	U	ND	0.013	U
Bromomethane																											
Vinyl Chloride																											
Chloroethane																											
Methylene Chloride																											
Acetone	0.022	0.012	B	0.031	0.013	B	0.025	0.015	B	0.18	0.066	B	0.041	0.013	B	ND	0.062	U	0.11	0.013	B	0.083	0.012	B	0.39	0.025	B
Carbon Disulfide																											
1,1-Dichloroethene																											
1,1-Dichloroethane																											
1,2-Dichloroethene (total)																											
Chloroform																											
1,2-Dichloroethane																											
2-Butanone																											
1,1,1-Trichloroethane	0.008	0.006		0.011	0.006		0.037	0.008		0.12	0.033		0.004	0.006	J	0.31	0.31		11	0.32		0.002	0.006	J	0.01	0.006	
Carbon Tetrachloride																											
Vinyl Acetate																											
Bromodichloromethane																											
1,2-Dichloropropane																											
cis-1,3-Dichloropropene																											
Trichloroethene	0.2	0.006		0.072	0.006		0.32	0.008		0.5	0.033		0.039	0.006		5.6	0.31		13	0.32		0.039	0.006		0.062	0.006	
Dibromochloromethane																											
1,1,2-Trichloroethane																											
Benzene																											
Trans-1,3-Dichloropropene																											
Bromoform																											
4-Methyl-2-Pentanone																											
2-Hexanone																											
Tetrachloroethene	0.004	0.006	J	ND	0.006	U	0.008	0.008		0.021	0.033	J	0.004	0.006	J	1.5	0.31		8.9	0.32		0.004	0.006	J	ND	0.006	U
1,1,2,2-Tetrachloroethane																											
Toluene	0.006	0.006		0.027	0.006		0.017	0.008		0.087	0.033		0.11	0.006		1.2	0.31		6.8	0.32		0.41	0.061		0.029	0.006	
Chlorobenzene																											
Ethylbenzene																											
styrene																											
Total Xylenes																											
Tetrahydrofuran	ND	0.006	U	0.001	0.006	J	ND	0.008	U	0.018	0.033	J	0.036	0.006		0.37	0.031		0.086	0.006		0.2	0.006		0.026	0.006	
Trichlorotrifluoroethane	ND	0.012	U	0.002	0.013	J	ND	0.015	U	0.019	0.066	J	0.002	0.013	J	ND	0.062	U	0.17	0.013		ND	0.012	U	ND	0.013	U

TABLE 6:
SOIL ANALYTICAL RESULTS
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	B1		B1		B2		B2		B3		B3		B3		B4		B4	
SAMPLING DATE	10/22/91		10/22/91		10/22/91		10/22/91		10/23/91		10/23/91		10/23/91		10/23/91		10/23/91	
SAMPLING DEPTH/INTERVAL	2'-4'		4'-6'		2'-4'		8'-10'		6'-8'		8'-10'		10'-12'		6'-8'		8'-10'	
SEMI-VOLATILE ORGANICS (mg/kg)	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag
Phenol																		
bis (2-Chloroethyl) Ether																		
2-Chlorophenol																		
1,3-Dichlorobenzene																		
1,4-Dichlorobenzene																		
Benzyl Alcohol																		
1,2-Dichlorobenzene																		
2-Methylphenol																		
bis (2-Chloroisopropyl) Ether																		
4-Methylphenol																		
N-Nitroso-Di-n-Propylamine																		
Hexachloroethane																		
Nitrobenzene																		
Isophorone																		
2-Nitrophenol																		
2,4-Dimethylphenol																		
Benzoic Acid																		
bis (2-Chloroethoxy) Methane																		
2,4-Dichlorophenol																		
1,2,4-Trichlorobenzene																		
Naphthalene																		
4-Chloroaniline																		
Hexachlorobutadiene																		
4-Chloro-3-Methylphenol																		
2-Methylnaphthalene																		
Hexachlorocyclopentadiene																		
2,4,6-Trichlorophenol																		
2,4,5-Trichlorophenol																		
2-Chloronaphthalene																		
2-Nitroaniline																		
Dimethyl Phthalate																		
Acenaphthylene																		
2,6-Dinitrotoluene																		
3-Nitroaniline																		
Acenaphthene																		
2,4-Dinitrophenol																		
4-Nitrophenol																		
Dibenzofuran																		
2,4-Dinitrotoluene																		
Diethylphthalate																		
4-Chlorophenyl-phenylether																		
luorene																		
4-Nitroaniline																		
4,6-Dinitro-2-Methylphenol																		
N-Nitrosodiphenylamine (1)																		

TABLE 6:
SOIL ANALYTICAL RESULTS
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	B1	B1	B2	B2	B3	B3	B3	B4	B4
SAMPLING DATE	10/22/91	10/22/91	10/22/91	10/22/91	10/23/91	10/23/91	10/23/91	10/23/91	10/23/91
SAMPLING DEPTH/INTERVAL	2'-4'	4'-6'	2'-4'	8'-10'	6'-8'	8'-10'	10'-12'	6'-8'	8'-10'
4-Bromophenyl-phenylether									
Hexachlorobenzene									
Pentachlorophenol									
Phenanthrene									
Anthracene									
Di-n-Butylphthalate									
Fluoranthene									
Pyrene									
Butylbenzylphthalate									
3,3'-Dichlorobenzidine									
Benzo (a) Anthracene									
Chrysene									
bis (2-Ethylhexyl) Phthalate									
Di-n-Octyl Phthalate									
Benzo (b) Fluoranthene									
Benzo (k)Fluoranthene									
Benzo (a) Pyrene									
Indeno (1,2,3-cd) Pyrene									
Dibenzo (a,h) Anthracene									
Benzo (g,h,i) Perylene									
Pyridine	ND 0.4 U	0.24 0.43 J	ND 0.5 U	ND 0.44 U	ND 0.42 U	ND 0.41 U	ND 0.42 U	ND 0.4 U	ND 0.42 U
3-Picoline	ND 0.4 U	40 2.2	ND 0.5 U	ND 0.44 U	1.1 0.42	0.63 0.41	1.8 0.42	11 0.81	0.75 0.42
1-Methyl-2-pyrrolidinone	ND 0.4 U	0.61 0.43	0.16 0.5 J	0.059 0.44 J	ND 0.42 U	ND 0.41 U	ND 0.42 U	ND 0.4 U	ND 0.42 U
N,N-Dimethylacetamide	ND 0.4 U	0.31 0.43 J	ND 0.5 U	ND 0.44 U	ND 0.42 U	ND 0.41 U	0.14 0.42 J	ND 0.4 U	ND 0.42 U
Lab Name	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast
Analytical Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method
	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270
Source Document(s)	1	1	1	1	1	1	1	1	1

1 Supplemental Investigation Report - Chicago Recycle Center - Safety-Kleen Corp. Append D, Dec. 1991

2 Loose Lab Sheet by Weston-Gulf Coast, Inc. Dec. 1993, Jan. 1994

U Compound was not detected at or above the reporting limit

J Result is an estimated value below the reporting limit or a tetatively identified compound (TIC)

B Compound was found in the blank and the sample

ND Non-Detected

RL Reporting Limit

SOHL_MG.XLS:6/29/94-11:36 AM

TABLE 6:
SOIL ANALYTICAL RESULTS
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	B4		B4		B4		B4		B4		B5		B5		B5		B5	
SAMPLING DATE	11/4/91		11/4/91		11/4/91		11/4/91		11/4/91		10/24/91		10/24/91		10/24/91		10/24/91	
SAMPLING DEPTH/INTERVAL	10'-12'		12'-14'		14'-16'		16'-18'		18'-20'		2'-4'		4'-6'		6'-8'		8'-10'	
SEMI-VOLATILE ORGANICS (mg/kg)	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag
Phenol																		
bis (2-Chloroethyl) Ether																		
2-Chlorophenol																		
1,3-Dichlorobenzene																		
1,4-Dichlorobenzene																		
Benzyl Alcohol																		
1,2-Dichlorobenzene																		
2-Methylphenol																		
bis (2-Chloroisopropyl) Ether																		
4-Methylphenol																		
N-Nitroso-Di-n-Propylamine																		
Hexachloroethane																		
Nitrobenzene																		
Isophorone																		
2-Nitrophenol																		
2,4-Dimethylphenol																		
Benzoic Acid																		
bis (2-Chloroethoxy) Methane																		
2,4-Dichlorophenol																		
1,2,4-Trichlorobenzene																		
Naphthalene																		
4-Chloroaniline																		
Hexachlorobutadiene																		
4-Chloro-3-Methylphenol																		
2-Methylnaphthalene																		
Hexachlorocyclopentadiene																		
2,4,6-Trichlorophenol																		
2,4,5-Trichlorophenol																		
2-Chloronaphthalene																		
2-Nitroaniline																		
Dimethyl Phthalate																		
Acenaphthylene																		
2,6-Dinitrotoluene																		
3-Nitroaniline																		
Acenaphthene																		
2,4-Dinitrophenol																		
4-Nitrophenol																		
Dibenzofuran																		
2,4-Dinitrotoluene																		
Diethylphthalate																		
4-Chlorophenyl-phenylether																		
uorene																		
4-Nitroaniline																		
4,6-Dinitro-2-Methylphenol																		
N-Nitrosodiphenylamine (1)																		

TABLE 6:
SOIL ANALYTICAL RESULTS
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	B4	B4	B4	B4	B4	B5	B5	B5	B5
SAMPLING DATE	11/4/91	11/4/91	11/4/91	11/4/91	11/4/91	10/24/91	10/24/91	10/24/91	10/24/91
SAMPLING DEPTH/INTERVAL	10'-12'	12'-14'	14'-16'	16'-18'	18'-20'	2'-4'	4'-6'	6'-8'	8'-10'
4-Bromophenyl-phenylether									
Hexachlorobenzene									
Pentachlorophenol									
Phenanthrene									
Anthracene									
Di-n-Butylphthalate									
Fluoranthene									
Pyrene									
Butylbenzylphthalate									
3,3'-Dichlorobenzidine									
Benzo (a) Anthracene									
Chrysene									
bis (2-Ethylhexyl) Phthalate									
Di-n-Octyl Phthalate									
Benzo (b) Fluoranthene									
Benzo (k)Fluoranthene									
Benzo (a) Pyrene									
Indeno (1,2,3-cd) Pyrene									
Dibenzo (a,h) Anthracene									
Benzo (g,h,i) Perylene									
Pyridine	ND 0.4 U	ND 0.39 U		ND 0.4 U		31 8	83 20	330 21	280 42
3-Picoline	0.47 0.4	ND 0.39 U		0.15 0.4 J		330 20	410 20	1400 83	1300 420
1-Methyl-2-pyrrolidinone	ND 0.4 U	ND 0.39 U		ND 0.4 U		13 8	31 4.1	52 8.3	64 8.4
N,N-Dimethylacetamide	ND 0.4 U	ND 0.39 U		ND 0.4 U		1.8 8 J	320 20	3400 410	5200 420
Lab Name	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast
Analytical Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method
	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270
Source Document(s)	1	1	1	1	1	1	1	1	1

1 Supplemental Investigation Report - Chicago Recycle Center - Safety-Kleen Corp. Append D, Dec. 1991
2 Loose Lab Sheet by Weston-Gulf Coast, Inc. Dec. 1993, Jan. 1994
U Compound was not detected at or above the reporting limit
J Result is an estimated value below the reporting limit or a tetatively identified compound (TIC)
B Compound was found in the blank and the sample
ND Non-Detected
RL Reporting Limit

TABLE 6:
SOIL ANALYTICAL RESULTS
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	B5			B6			B6			B8			B8			MW-1			MW-1			MW-2			MW-2			MW-3		
SAMPLING DATE	10/24/91			10/25/91			10/25/91			10/23/91			10/23/91			10/24/91			10/24/91			10/24/91			10/24/91			10/25/91		
SAMPLING DEPTH/INTERVAL	10'-12'			8'-10'			4'-6'			2'-4'			8'-10'			4'-6'			6'-8'			6'-8'			10'-12'			4'-6'		
METALS - TCLP (mg/l)																														
Silver																														
Arsenic																														
Barium																														
Cadmium																														
Chromium																														
Mercury																														
Lead																														
Selenium																														
VOLATILE ORGANICS (mg/kg)	RL	flag		RL	flag		RL	flag		RL	flag		RL	flag		RL	flag		RL	flag		RL	flag		RL	flag		RL	flag	
Chloromethane	ND	0.25	U	ND	0.064	U	ND	0.25	U	ND	0.25	U	ND	0.13	U	ND	0.12	U	ND	0.25	U	ND	0.25	U	ND	0.25	U	ND	0.13	U
Bromomethane																														
Vinyl Chloride																														
Chloroethane																														
Methylene Chloride																														
Acetone	ND	0.25	U	0.048	0.064	J	2.2	0.25	B	ND	0.25	U	0.43	0.13	B	0.057	0.12	JB	0.37	0.25	B	3.4	0.25	B	0.85	0.25	B	0.31	0.13	B
Carbon Disulfide																														
1,1-Dichloroethene																														
1,1-Dichloroethane																														
1,2-Dichloroethene (total)																														
Chloroform																														
1,2-Dichloroethane																														
2-Butanone																														
1,1,1-Trichloroethane	420	12		ND	0.032	U	ND	0.12	U	ND	0.13	U	ND	0.063	U	0.038	0.062	J	ND	0.12	U	0.46	0.12		0.52	0.12		0.027	0.066	J
Carbon Tetrachloride																														
Vinyl Acetate																														
Bromodichloromethane																														
1,2-Dichloropropane																														
cis-1,3-Dichloropropene																														
Trichloroethene	530	31		0.047	0.032		0.11	0.12	J	ND	0.13	U	13	0.32		0.6	0.062		0.8	0.12		8.4	0.31		5.2	0.31		0.34	0.066	
Dibromochloromethane																														
1,1,2-Trichloroethane																														
Benzene																														
Trans-1,3-Dichloropropene																														
Bromoform																														
4-Methyl-2-Pentanone																														
2-Hexanone																														
Tetrachloroethene	ND	0.12	U	ND	0.032	U	ND	0.12	U	ND	0.13	U	4.7	0.32		ND	0.062	U	ND	0.12	U	0.61	0.12		0.4	0.12		ND	0.066	U
1,1,2,2-Tetrachloroethane																														
Toluene	320	12		0.036	0.032		5.7	0.62		6.9	1.3		0.85	0.063		0.54	0.062		2.3	0.12		3.5	0.12		2.3	0.12		0.46	0.066	
Chlorobenzene																														
Ethylbenzene																														
Styrene																														
Total Xylenes																														
Tetrahydrofuran	0.74	0.12		0.97	0.032		3.4	0.12		16	1.3		2.4	0.063		0.36	0.062		0.31	0.12		1.4	0.12		0.96	0.12		1.5	0.066	
Trichlorotrifluoroethane	2.3	0.25		ND	0.064	U	ND	0.25	U	ND	0.25	U	0.43	0.13		ND	0.12	U	ND	0.25	U	ND	0.25	U	ND	0.25	U	ND	0.13	U

TABLE 6:
SOIL ANALYTICAL RESULTS
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	B5		B6		B6		B8		B8		MW-1		MW-1		MW-2		MW-2		MW-3	
SAMPLING DATE	10/24/91		10/25/91		10/25/91		10/23/91		10/23/91		10/24/91		10/24/91		10/24/91		10/24/91		10/25/91	
SAMPLING DEPTH/INTERVAL	10'-12'		8'-10'		4'-6'		2'-4'		8'-10'		4'-6'		6'-8'		6'-8'		10'-12'		4'-6'	
SEMI-VOLATILE ORGANICS (mg/kg)	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag
Phenol																				
bis (2-Chloroethyl) Ether																				
2-Chlorophenol																				
1,3-Dichlorobenzene																				
1,4-Dichlorobenzene																				
Benzyl Alcohol																				
1,2-Dichlorobenzene																				
2-Methylphenol																				
bis (2-Chloroisopropyl) Ether																				
4-Methylphenol																				
N-Nitroso-Di-n-Propylamine																				
Hexachloroethane																				
Nitrobenzene																				
Isophorone																				
2-Nitrophenol																				
2,4-Dimethylphenol																				
Benzoic Acid																				
bis (2-Chloroethoxy) Methane																				
2,4-Dichlorophenol																				
1,2,4-Trichlorobenzene																				
Naphthalene																				
4-Chloroaniline																				
Hexachlorobutadiene																				
4-Chloro-3-Methylphenol																				
2-Methylnaphthalene																				
Hexachlorocyclopentadiene																				
2,4,6-Trichlorophenol																				
2,4,5-Trichlorophenol																				
2-Chloronaphthalene																				
2-Nitroaniline																				
Dimethyl Phthalate																				
Acenaphthylene																				
2,6-Dinitrotoluene																				
3-Nitroaniline																				
Acenaphthene																				
2,4-Dinitrophenol																				
4-Nitrophenol																				
Dibenzofuran																				
2,4-Dinitrotoluene																				
Diethylphthalate																				
4-Chlorophenyl-phenylether																				
uorene																				
4-Nitroaniline																				
4,6-Dinitro-2-Methylphenol																				
N-Nitrosodiphenylamine (1)																				

TABLE 6:
SOIL ANALYTICAL RESULTS
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	B5	B6	B6	B8	B8	MW-1	MW-1	MW-2	MW-2	MW-3
SAMPLING DATE	10/24/91	10/25/91	10/25/91	10/23/91	10/23/91	10/24/91	10/24/91	10/24/91	10/24/91	10/25/91
SAMPLING DEPTH/INTERVAL	10'-12'	8'-10'	4'-6'	2'-4'	8'-10'	4'-6'	6'-8'	6'-8'	10'-12'	4'-6'
4-Bromophenyl-phenylether										
Hexachlorobenzene										
Pentachlorophenol										
Phenanthrene										
Anthracene										
Di-n-Butylphthalate										
Fluoranthene										
Pyrene										
Butylbenzylphthalate										
3,3'-Dichlorobenzidine										
Benzo (a) Anthracene										
Chrysene										
bis (2-Ethylhexyl) Phthalate										
Di-n-Octyl Phthalate										
Benzo (b) Fluoranthene										
Benzo (k)Fluoranthene										
Benzo (a) Pyrene										
Indeno (1,2,3-cd) Pyrene										
Dibenzo (a,h) Anthracene										
Benzo (g,h,i) Perylene										
Pyridine	120 8.3	0.78 2.1 J	2.7 4.1 J	ND 0.42 U	ND 4.2 U	1.8 4.1 J	0.093 0.41 J	2.5 8.2 J	17 4.1	ND 0.43 U
3-Picoline	660 42	ND 2.1 U	ND 4.1 U	4.2 0.42	ND 4.2 U	39 4.1	5.4 0.41	570 41	310 21	ND 0.43 U
1-Methyl-2-pyrrolidinone	310 21	8.3 2.1	70 4.1	ND 0.42 U	ND 4.2 U	1.2 4.1 J	ND 0.41 U	13 8.2	17 4.1	1.6 0.43
N,N-Dimethylacetamide	3000 420	590 100	1800 410	ND 0.42 U	ND 4.2 U	1.5 4.1 J	0.083 0.41 J	2500 410	2600 210	70 8.7
Lab Name	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast
Analytical Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method
	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270
Source Document(s)	1	1	1	1	1	1	1	1	1	1

1 Supplemental Investigation Report - Chicago Recycle Center - Safety-Kleen Corp. Append D, Dec. 1991
2 Loose Lab Sheet by Weston-Gulf Coast, Inc. Dec. 1993, Jan. 1994
U Compound was not detected at or above the reporting limit
J Result is an estimated value below the reporting limit or a tetatively identified compound (TIC)
B Compound was found in the blank and the sample
ND Non-Detected
RL Reporting Limit

TABLE 6:
SOIL ANALYTICAL RESULTS
 SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	MW-3	SB-4	SB-4 RERUN	SB-4	SB-4 DUP4	SB-5	SB-5 DUP3	SB-5	SB-6
SAMPLING DATE	10/25/91	12/7/93	12/7/93	12/7/93	12/7/93	12/7/93	12/7/93	12/7/93	12/6/93
SAMPLING DEPTH/INTERVAL	10'-12'	5-6'	5-6'	16.5-17'	17-18'	8.5-9.5'	9.5-10'	18.5-20'	6-7'
METALS - TCLP (mg/l)		5.5-6' RL flag			17.5-18' RL flag	9-9.5' RL flag	9.5-10' RL flag	19-20' RL flag	6.5-7' RL flag
Silver		ND 0.05 U			ND 0.05 U	ND 0.05 U	ND 0.05 U	ND 0.05 U	ND 0.05 U
Arsenic		ND 0.1 U			ND 0.1 U	ND 0.1 U	ND 0.1 U	ND 0.1 U	ND 0.1 U
Barium		ND 0.5 U			0.72 0.5	ND 0.5 U	ND 0.5 U	0.75 0.5	ND 0.5 U
Cadmium		ND 0.05 U			ND 0.05 U	ND 0.05 U	ND 0.05 U	ND 0.05 U	ND 0.05 U
Chromium		ND 0.05 U			ND 0.05 U	ND 0.05 U	ND 0.05 U	ND 0.05 U	ND 0.05 U
Mercury		ND 0.01 U			ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U
Lead		ND 0.05 U			ND 0.05 U	ND 0.05 U	ND 0.05 U	ND 0.05 U	ND 0.05 U
Selenium		ND 0.1 U			ND 0.1 U	ND 0.1 U	ND 0.1 U	ND 0.1 U	ND 0.1 U
VOLATILE ORGANICS (mg/kg)	RL flag	5-5.5' RL flag		16.5-17' RL flag	17-17.5' RL flag	8.5-9' RL flag		18.5-19' RL flag	6-6.5' RL flag
Chloromethane	ND 0.012 U	ND 0.012 U		ND 0.011 U	ND 0.011 U	ND 0.012 U		ND 0.012 U	ND 0.012 U
Bromomethane		ND 0.012 U		ND 0.011 U	ND 0.011 U	ND 0.012 U		ND 0.012 U	ND 0.012 U
Vinyl Chloride		ND 0.012 U		0.022 0.011	ND 0.011 U	ND 0.012 U		ND 0.012 U	ND 0.012 U
Chloroethane		ND 0.012 U		ND 0.011 U	ND 0.011 U	ND 0.012 U		ND 0.012 U	ND 0.012 U
Methylene Chloride		0.23 0.06		0.075 0.028	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
Acetone	0.31 0.012	1.8 0.12		0.44 0.056	0.18 0.056 B	0.2 0.06 B		0.37 0.12 B	0.019 0.012
Carbon Disulfide		0.17 0.006		0.029 0.006	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
1,1-Dichloroethene		ND 0.006 U		ND 0.006 U	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
1,1-Dichloroethane		0.03 0.006		0.012 0.006	ND 0.006 U	0.01 0.006		ND 0.006 U	ND 0.006 U
1,2-Dichloroethene (total)		0.16 0.006		0.3 0.006	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
Chloroform		0.21 0.006		0.15 0.028	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
1,2-Dichloroethane		ND 0.006 U		ND 0.006 U	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
2-Butanone		0.11 0.012		0.029 0.011	ND 0.011 U	ND 0.012 U		ND 0.012 U	ND 0.012 U
1,1,1-Trichloroethane	0.011 0.006	ND 0.006 U		ND 0.006 U	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
Carbon Tetrachloride		ND 0.006 U		ND 0.006 U	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
Vinyl Acetate		ND 0.012 U		ND 0.011 U	ND 0.011 U	ND 0.012 U		ND 0.012 U	ND 0.012 U
Bromodichloromethane		ND 0.006 U		ND 0.006 U	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
1,2-Dichloropropane		0.012 0.006		ND 0.006 U	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
cis-1,3-Dichloropropene		ND 0.006 U		ND 0.006 U	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
Trichloroethene	0.055 0.006	0.096 0.006		0.051 0.006	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
Dibromochloromethane		ND 0.006 U		ND 0.006 U	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
1,1,2-Trichloroethane		ND 0.006 U		ND 0.006 U	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
Benzene		1.5 0.06		0.6 0.028	0.006 0.006	0.031 0.006		ND 0.006 U	ND 0.006 U
Trans-1,3-Dichloropropene		ND 0.006 U		ND 0.006 U	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
Bromoform		ND 0.006 U		ND 0.006 U	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
4-Methyl-2-Pentanone		0.71 0.12		0.22 0.056	ND 0.011 U	ND 0.012 U		ND 0.012 U	ND 0.012 U
2-Hexanone		ND 0.012 U		ND 0.011 U	ND 0.011 U	ND 0.012 U		ND 0.012 U	ND 0.012 U
Tetrachloroethene	ND 0.006 U	0.019 0.006		ND 0.006 U	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
1,1,2,2-Tetrachloroethane		ND 0.006 U		ND 0.006 U	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
Toluene	0.031 0.006	28 0.6		0.48 0.028	0.006 0.006	ND 0.006 U		ND 0.006 U	ND 0.006 U
Chlorobenzene		ND 0.006 U		ND 0.006 U	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
Ethylbenzene		0.24 0.06		0.07 0.006	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
Styrene		ND 0.006 U		ND 0.006 U	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
Total Xylenes		0.21 0.06		0.066 0.006	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
Tetrahydrofuran	0.03 0.006	5.1 0.6		1.7 0.028	ND 0.006 U	ND 0.006 U		ND 0.006 U	ND 0.006 U
Trichlorotrifluoroethane	ND 0.012 U	ND 0.012 U		ND 0.011 U	ND 0.011 U	ND 0.012 U		ND 0.012 U	ND 0.012 U

TABLE 6:
SOIL ANALYTICAL RESULTS
 SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	MW-3		SB-4		SB-4 RERUN		SB-4		SB-4 DUP4		SB-5		SB-5 DUP3		SB-5		SB-6	
SAMPLING DATE	10/25/91		12/7/93		12/7/93		12/7/93		12/7/93		12/7/93		12/7/93		12/7/93		12/6/93	
SAMPLING DEPTH/INTERVAL	10'-12'		5-6'		5-6'		16.5-17'		17-18'		8.5-9.5'		9.5-10'		18.5-20'		6-7'	
SEMI-VOLATILE ORGANICS (mg/kg)	RL	flag	5.5-6' RL	flag	5.5-6'				17.5-18 RL	flag	9-9.5' RL	flag	9.5-10' RL	flag	19-20' RL	flag	6.5-7' RL	flag
Phenol			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
bis (2-Chloroethyl) Ether			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
2-Chlorophenol			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
1,3-Dichlorobenzene			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
1,4-Dichlorobenzene			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
Benzyl Alcohol			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
1,2-Dichlorobenzene			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
2-Methylphenol			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
bis (2-Chloroisopropyl) Ether			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
4-Methylphenol			0.05 0.41	J	0.82 0.41				ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
N-Nitroso-Di-n-Propylamine			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
Hexachloroethane			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
Nitrobenzene			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
Isophorone			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
2-Nitrophenol			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
2,4-Dimethylphenol			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
Benzoic Acid			ND 2.1	U	0.062 2.1	J			ND 1.9	U	ND 2	U	ND 2	U	ND 2	U	ND 2.1	U
bis (2-Chloroethoxy) Methane			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
2,4-Dichlorophenol			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
1,2,4-Trichlorobenzene			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
Naphthalene			ND 0.41	U	0.058 0.41	J			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
4-Chloroaniline			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
Hexachlorobutadiene			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
4-Chloro-3-Methylphenol			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
2-Methylnaphthalene			ND 0.41	U	0.046 0.41	J			0.059 0.38	J	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
Hexachlorocyclopentadiene			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
2,4,6-Trichlorophenol			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
2,4,5-Trichlorophenol			ND 2.1	U	ND 2.1	U			ND 1.9	U	ND 2	U	ND 2	U	ND 2	U	ND 2.1	U
2-Chloronaphthalene			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
2-Nitroaniline			ND 2.1	U	ND 2.1	U			ND 1.9	U	ND 2	U	ND 2	U	ND 2	U	ND 2.1	U
Dimethyl Phthalate			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
Acenaphthylene			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
2,6-Dinitrotoluene			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
3-Nitroaniline			ND 2.1	U	ND 2.1	U			ND 1.9	U	ND 2	U	ND 2	U	ND 2	U	ND 2.1	U
Acenaphthene			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
2,4-Dinitrophenol			ND 2.1	U	ND 2.1	U			ND 1.9	U	ND 2	U	ND 2	U	ND 2	U	ND 2.1	U
4-Nitrophenol			ND 2.1	U	ND 2.1	U			ND 1.9	U	ND 2	U	ND 2	U	ND 2	U	ND 2.1	U
Dibenzofuran			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
2,4-Dinitrotoluene			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
Diethylphthalate			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
4-Chlorophenyl-phenylether			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
luorene			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U
4-Nitroaniline			ND 2.1	U	ND 2.1	U			ND 1.9	U	ND 2	U	ND 2	U	ND 2	U	ND 2.1	U
4,6-Dinitro-2-Methylphenol			ND 2.1	U	ND 2.1	U			ND 1.9	U	ND 2	U	ND 2	U	ND 2	U	ND 2.1	U
N-Nitrosodiphenylamine (1)			ND 0.41	U	ND 0.41	U			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U

TABLE 6:
SOIL ANALYTICAL RESULTS
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	MW-3	SB-4	SB-4 RERUN	SB-4	SB-4 DUP4	SB-5	SB-5 DUP3	SB-5	SB-6
SAMPLING DATE	10/25/91	12/7/93	12/7/93	12/7/93	12/7/93	12/7/93	12/7/93	12/7/93	12/6/93
SAMPLING DEPTH/INTERVAL	10'-12'	5-6'	5-6'	16.5-17'	17-18'	8.5-9.5'	9.5-10'	18.5-20'	6-7'
4-Bromophenyl-phenylether		ND 0.41 U	ND 0.41 U		ND 0.38 U	ND 0.41 U	ND 0.41 U	ND 0.4 U	ND 0.42 U
Hexachlorobenzene		ND 0.41 U	ND 0.41 U		ND 0.38 U	ND 0.41 U	ND 0.41 U	ND 0.4 U	ND 0.42 U
Pentachlorophenol		ND 2.1 U	ND 2.1 U		ND 1.9 U	ND 2 U	ND 2 U	ND 2 U	ND 2.1 U
Phenanthrene		ND 0.41 U	0.05 0.41 J		0.07 0.38 J	0.063 0.41 J	0.057 0.41 J	ND 0.4 U	ND 0.42 U
Anthracene		ND 0.41 U	ND 0.41 U		ND 0.38 U	ND 0.41 U	ND 0.41 U	ND 0.4 U	ND 0.42 U
Di-n-Butylphthalate		ND 0.41 U	0.33 0.41 J		0.17 0.38 JB	0.14 0.41 JB	0.17 0.41 JB	0.15 0.4 JB	0.12 0.42 JB
Fluoranthene		ND 0.41 U	0.21 0.41 J		ND 0.38 U	0.063 0.41 J	ND 0.41 U	ND 0.4 U	ND 0.42 U
Pyrene		ND 0.41 U	0.22 0.41 J		ND 0.38 U	0.063 0.41 J	ND 0.41 U	ND 0.4 U	ND 0.42 U
Butylbenzylphthalate		ND 0.41 U	ND 0.41 U		ND 0.38 U	ND 0.41 U	ND 0.41 U	ND 0.4 U	ND 0.42 U
3,3'-Dichlorobenzidine		ND 0.83 U	ND 0.83 U		ND 0.77 U	ND 0.81 U	ND 0.81 U	ND 0.81 U	ND 0.84 U
Benzo (a) Anthracene		ND 0.41 U	0.087 0.41 J		ND 0.38 U	ND 0.41 U	ND 0.41 U	ND 0.4 U	ND 0.42 U
Chrysene		ND 0.41 U	0.095 0.41 J		ND 0.38 U	ND 0.41 U	ND 0.41 U	ND 0.4 U	ND 0.42 U
bis (2-Ethylhexyl) Phthalate		ND 0.41 U	0.087 0.41 J		ND 0.38 U	ND 0.41 U	ND 0.41 U	ND 0.4 U	ND 0.42 U
Di-n-Octyl Phthalate		ND 0.41 U	ND 0.41 U		ND 0.38 U	ND 0.41 U	ND 0.41 U	ND 0.4 U	ND 0.42 U
Benzo (b) Fluoranthene		ND 0.41 U	0.12 0.41 J		ND 0.38 U	ND 0.41 U	ND 0.41 U	ND 0.4 U	ND 0.42 U
Benzo (k)Fluoranthene		ND 0.41 U	0.087 0.41 J		ND 0.38 U	ND 0.41 U	ND 0.41 U	ND 0.4 U	ND 0.42 U
Benzo (a) Pyrene		ND 0.41 U	0.046 0.41 J		ND 0.38 U	ND 0.41 U	ND 0.41 U	ND 0.4 U	ND 0.42 U
Indeno (1,2,3-cd) Pyrene		ND 0.41 U	ND 0.41 U		ND 0.38 U	ND 0.41 U	ND 0.41 U	ND 0.4 U	ND 0.42 U
Dibenzo (a,h) Anthracene		ND 0.41 U	ND 0.41 U		ND 0.38 U	ND 0.41 U	ND 0.41 U	ND 0.4 U	ND 0.42 U
Benzo (g,h,i) Perylene		ND 0.41 U	0.058 0.41 J		ND 0.38 U	ND 0.41 U	ND 0.41 U	ND 0.4 U	ND 0.42 U
Pyridine	ND 0.39	ND 2.1 U	ND 2.1 U		ND 1.9 U	ND 2 U	ND 2 U	ND 2 U	ND 2.1 U
3-Picoline	ND 0.39	8.5 0.41	9.7 0.41		0.095 0.38 J	ND 0.41 U	ND 0.41 U	ND 0.4 U	0.37 0.42 J
1-Methyl-2-pyrrolidinone	0.27 0.39 J	ND 0.83 U	ND 0.83 U		ND 0.77 U	ND 0.81 U	ND 0.81 U	ND 0.81 U	ND 0.84 U
N,N-Dimethylacetamide	10 2								
Lab Name	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast
Analytical Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method
	8240 &8270	8240	8240	8240	8240	8240	8240	8240	8240
Source Document(s)	1	2	2	2	2	2	2	2	2

1 Supplemental Investigation Report - Chicago Recycle Center - Safety-Kleen Corp. Append D, Dec. 1991
2 Loose Lab Sheet by Weston-Gulf Coast, Inc. Dec. 1993, Jan. 1994
U Compound was not detected at or above the reporting limit
J Result is an estimated value below the reporting limit or a tetatively identified compound (TIC)
B Compound was found in the blank and the sample
ND Non-Detected
RL Reporting Limit

TABLE 6:
SOIL ANALYTICAL RESULTS
SAFETY-KLEEN SITE, CHICAGO, IL

DRILLING/ WELL I.D.	SB-6			SB-6 RERUN			SB-7			SB-7			SB-7 DUP5			SB-8			SB-8			SB-8			SB-9		
SAMPLING DATE	12/6/93			12/6/93			12/8/93			12/8/93			12/8/93			12/8/93			12/8/93			12/8/93			12/6/93		
SAMPLING DEPTH/INTERVAL	17.5-18.5'			17.5-18			8-8.5'			11.5-12'			12.5-13'			7.5-8.5'			17.5-18.5'			19.5-20'			8-9'		
METALS - TCLP (mg/l)	18-18.5'	RL	flag				8.5-9'	RL	flag	12-12.5'	RL	flag	12.5-13'	RL	flag	8-8.5'	RL	flag	18-18.5'	RL	flag	20-20.5'	RL	flag	8.5-9'	RL	flag
Silver	ND	0.05	U				ND	0.05	U	ND	0.05	U	ND	0.05	U	ND	0.05	U	ND	0.05	U	ND	0.05	U	ND	0.05	U
Arsenic	ND	0.1	U				ND	0.1	U	ND	0.1	U	ND	0.1	U	ND	0.1	U	ND	0.1	U	ND	0.1	U	ND	0.1	U
Barium	1.3	0.5					ND	0.5	U	0.69	0.5		0.87	0.5		ND	0.5	U	ND	0.5	U	ND	0.5	U	1.8	0.5	
Cadmium	ND	0.05	U				ND	0.05	U	ND	0.05	U	ND	0.05	U	ND	0.05	U	ND	0.05	U	ND	0.05	U	ND	0.05	U
Chromium	ND	0.05	U				ND	0.05	U	ND	0.05	U	ND	0.05	U	ND	0.05	U	ND	0.05	U	ND	0.05	U	ND	0.05	U
Mercury	ND	0.01	U				ND	0.01	U	ND	0.01	U	ND	0.01	U	ND	0.01	U	ND	0.01	U	ND	0.01	U	ND	0.01	U
Lead	ND	0.05	U				ND	0.05	U	ND	0.05	U	ND	0.05	U	ND	0.05	U	ND	0.05	U	ND	0.05	U	ND	0.05	U
Selenium	ND	0.1	U				ND	0.1	U	ND	0.1	U	ND	0.1	U	ND	0.1	U	ND	0.1	U	ND	0.1	U	ND	0.1	U
VOLATILE ORGANICS (mg/kg)	17.5-18'	RL	flag	17.5-18'	RL	flag	8-8.5'	RL	flag	11.5-12'	RL	flag				7.5-8'	RL	flag	17.5-18'	RL	flag	19.5-20'	RL	flag	8-8.5'	RL	flag
Chloromethane	ND	0.012	U	ND	0.012	U	ND	0.012	U	ND	0.012	U				ND	0.012	U	ND	0.011	U	ND	0.012	U	ND	0.012	U
Bromomethane	ND	0.012	U	ND	0.012	U	ND	0.012	U	ND	0.012	U				ND	0.012	U	ND	0.011	U	ND	0.012	U	ND	0.012	U
Vinyl Chloride	ND	0.012	U	ND	0.012	U	ND	0.012	U	ND	0.012	U				ND	0.012	U	ND	0.011	U	ND	0.012	U	ND	0.012	U
Chloroethane	ND	0.012	U	ND	0.012	U	ND	0.012	U	ND	0.012	U				0.03	0.012		0.068	0.011		ND	0.012	U	ND	0.012	U
Methylene Chloride	ND	0.006	U	ND	0.006	U	0.009	0.006	B	0.036	0.006	B				0.007	0.006	B	0.14	0.006	B	0.14	0.006	B	ND	0.006	U
Acetone	0.053	0.012		0.12	0.012		0.66	0.12	B	1.8	0.58					0.029	0.012	B	ND	0.011	U	ND	0.012	U	0.04	0.012	
Carbon Disulfide	ND	0.006	U	ND	0.006	U	0.004	0.006	J	ND	0.006	U				ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U
1,1-Dichloroethene	ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U				ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U
1,1-Dichloroethane	ND	0.006	U	ND	0.006	U	0.048	0.006		ND	0.006	U				0.006	0.006		6.1	0.11		0.7	0.058		0.017	0.006	
1,2-Dichloroethene (total)	ND	0.006	U	ND	0.006	U	0.043	0.006		ND	0.006	U				ND	0.006	U	0.026	0.006		0.007	0.006		0.005	0.006	J
Chloroform	ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U				ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U
1,2-Dichloroethane	ND	0.006	U	ND	0.006	U	ND	0.006	U	0.024	0.006					ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U
2-Butanone	ND	0.012	U	ND	0.012	U	0.037	0.012		0.2	0.012					ND	0.012	U	0.014	0.011		ND	0.012	U	ND	0.012	U
1,1,1-Trichloroethane	ND	0.006	U	ND	0.006	U	0.006	0.006		ND	0.006	U				ND	0.006	U	1.2	0.11		0.2	0.006		ND	0.006	U
Carbon Tetrachloride	ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U				ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U
Vinyl Acetate	ND	0.012	U	ND	0.012	U	ND	0.012	U	ND	0.012	U				ND	0.012	U	ND	0.011	U	ND	0.012	U	ND	0.012	U
Bromodichloromethane	ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U				ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U
1,2-Dichloropropane	ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U				ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U
cis-1,3-Dichloropropene	ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U				ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U
Trichloroethene	ND	0.006	U	ND	0.006	U	0.004	0.006	J	ND	0.006	U				ND	0.006	U	17	5.6		2.4	0.058		ND	0.006	U
Dibromochloromethane	ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U				ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U
1,1,2-Trichloroethane	ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U				ND	0.006	U	0.007	0.006		ND	0.006	U	ND	0.006	U
Benzene	ND	0.006	U	ND	0.006	U	0.11	0.006		0.38	0.29					0.024	0.006		0.022	0.006		0.004	0.006	J	0.006	0.006	
Trans-1,3-Dichloropropene	ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U				ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U
Bromoform	ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U				ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U
4-Methyl-2-Pentanone	ND	0.012	U	ND	0.012	U	0.26	0.12		0.023	0.012					ND	0.012	U	ND	0.011	U	ND	0.012	U	ND	0.012	U
2-Hexanone	ND	0.012	U	ND	0.012	U	ND	0.012	U	ND	0.012	U				ND	0.012	U	ND	0.011	U	ND	0.012	U	ND	0.012	U
Tetrachloroethene	ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U				ND	0.006	U	16	5.6		1.8	0.058		ND	0.006	U
1,1,2,2-Tetrachloroethane	ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U				ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U
Toluene	ND	0.006	U	ND	0.006	U	0.17	0.006		0.74	0.29					1.7	0.06		25	5.6		2.1	0.058		0.003	0.006	J
Chlorobenzene	ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U				ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U
Ethylbenzene	ND	0.006	U	ND	0.006	U	2	0.058		1.4	0.29					ND	0.006	U	0.025	0.006		ND	0.006	U	ND	0.006	U
Xyrene	ND	0.006	U	ND	0.006	U	0.006	0.006		3.5	0.29					ND	0.006	U	ND	0.006	U	ND	0.006	U	ND	0.006	U
Total Xylenes	ND	0.006	U	ND	0.006	U	0.28	0.058		0.071	0.006					ND	0.006	U	0.083	0.006		0.014	0.006		ND	0.006	U
Tetrahydrofuran	ND	0.006	U	ND	0.006	U	1.7	0.29		0.21	0.006					6.9	0.3		0.26	0.006		0.091	0.006		ND	0.006	U
Trichlorotrifluoroethane	ND	0.012	U	ND	0.012	U	0.26	0.12		24	2.3					ND	0.012	U	260	11		24	12		ND	0.012	U

TABLE 6:
SOIL ANALYTICAL RESULTS
AFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	SB-6			SB-6 RERUN			SB-7			SB-7			SB-7 DUP5			SB-8			SB-8			SB-8			SB-9		
SAMPLING DATE	12/6/93			12/6/93			12/8/93			12/8/93			12/8/93			12/8/93			12/8/93			12/8/93			12/6/93		
SAMPLING DEPTH/INTERVAL	17.5-18.5'			17.5-18			8-8.5'			11.5-12'			12.5-13'			7.5-8.5'			17.5-18.5'			19.5-20'			8-9'		
SEMI-VOLATILE ORGANICS (mg/kg)	18-18.5'	RL	flag				8.5-9' RL	flag		12-12.5' RL	flag		12.5-13' RL	flag		8-8.5' RL	flag		18-18.5' RL	flag		20-20.5' RL	flag		8.5-9' RL	flag	
Phenol	ND	0.4	U				ND	0.4	U	4.1	0.4		1.6	0.4		2.6	0.41		ND	0.4	U	ND	0.39	U	ND	0.42	U
bis (2-Chloroethyl) Ether	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
2-Chlorophenol	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
1,3-Dichlorobenzene	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
1,4-Dichlorobenzene	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
Benzyl Alcohol	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
1,2-Dichlorobenzene	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
2-Methylphenol	ND	0.4	U				ND	0.4	U	0.06	0.4	J	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
bis (2-Chloroisopropyl) Ether	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
4-Methylphenol	ND	0.4	U				0.18	0.4	J	ND	0.4	U	ND	0.4	U	0.46	0.41		ND	0.4	U	ND	0.39	U	ND	0.42	U
N-Nitroso-Di-n-Propylamine	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
Hexachloroethane	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
Nitrobenzene	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
Isophorone	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
2-Nitrophenol	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
2,4-Dimethylphenol	ND	0.4	U				0.6	0.4		ND	0.4	U	ND	0.4	U	0.86	0.41		ND	0.4	U	ND	0.39	U	ND	0.42	U
Benzoic Acid	ND	2	U				ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2.1	U
bis (2-Chloroethoxy) Methane	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
2,4-Dichlorophenol	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
1,2,4-Trichlorobenzene	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
Naphthalene	ND	0.4	U				0.14	0.4	J	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
4-Chloroaniline	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
Hexachlorobutadiene	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
4-Chloro-3-Methylphenol	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
2-Methylnaphthalene	0.046	0.4	J				0.11	0.4	J	0.045	0.4	J	0.047	0.4	J	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
Hexachlorocyclopentadiene	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
2,4,6-Trichlorophenol	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
2,4,5-Trichlorophenol	ND	2	U				ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2.1	U
2-Chloronaphthalene	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
2-Nitroaniline	ND	2	U				ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2.1	U
Dimethyl Phthalate	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
Acenaphthylene	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
2,6-Dinitrotoluene	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
3-Nitroaniline	ND	2	U				ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2.1	U
Acenaphthene	ND	0.4	U				0.12	0.4	J	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
2,4-Dinitrophenol	ND	2	U				ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2.1	U
4-Nitrophenol	ND	2	U				ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2.1	U
Dibenzofuran	ND	0.4	U				0.067	0.4	J	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
2,4-Dinitrotoluene	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
Diethylphthalate	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
1-Chlorophenyl-phenylether	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
Fluorene	ND	0.4	U				0.15	0.4	J	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U
4-Nitroaniline	ND	2	U				ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2.1	U
4,6-Dinitro-2-Methylphenol	ND	2	U				ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2	U	ND	2.1	U
N-Nitrosodiphenylamine (1)	ND	0.4	U				ND	0.4	U	ND	0.4	U	ND	0.4	U	ND	0.41	U	ND	0.4	U	ND	0.39	U	ND	0.42	U

TABLE 6:
SOIL ANALYTICAL RESULTS
 SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	SB-6	SB-6 RERUN	SB-7	SB-7	SB-7 DUP5	SB-8	SB-8	SB-8	SB-9
SAMPLING DATE	12/6/93	12/6/93	12/8/93	12/8/93	12/8/93	12/8/93	12/8/93	12/8/93	12/6/93
SAMPLING DEPTH/INTERVAL	17.5-18.5'	17.5-18	8-8.5'	11.5-12'	12.5-13'	7.5-8.5'	17.5-18.5'	19.5-20'	8-9'
4-Bromophenyl-phenylether	ND 0.4 U		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U
Hexachlorobenzene	ND 0.4 U		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U
Pentachlorophenol	ND 2 U		ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2.1 U
Phenanthrene	ND 0.4 U		0.57 0.4	0.18 0.4 J	0.21 0.4 J	0.046 0.41 J	ND 0.4 U	ND 0.39 U	0.41 0.42 J
Anthracene	ND 0.4 U		0.14 0.4 J	0.044 0.4 J	0.051 0.4 J	ND 0.41 U	ND 0.4 U	ND 0.39 U	0.064 0.42 J
Di-n-Butylphthalate	0.11 0.4 JB		0.37 0.4 JB	0.24 0.4 JB	0.2 0.4 JB	0.28 0.41 JB	0.22 0.4 JB	0.24 0.39 JB	0.14 0.42 JB
Fluoranthene	ND 0.4 U		0.75 0.4	0.19 0.4 J	0.27 0.4 J	0.057 0.41 J	ND 0.4 U	ND 0.39 U	0.42 0.42
Pyrene	ND 0.4 U		0.62 0.4	0.14 0.4 J	0.2 0.4 J	0.056 0.41 J	ND 0.4 U	ND 0.39 U	0.36 0.42 J
Butylbenzylphthalate	ND 0.4 U		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U
3,3'-Dichlorobenzidine	ND 0.79 U		ND 0.79 U	ND 0.81 U	ND 0.8 U	ND 0.81 U	ND 0.8 U	ND 0.78 U	ND 0.84 U
Benzo (a) Anthracene	ND 0.4 U		0.38 0.4 J	0.086 0.4 J	0.13 0.4 J	ND 0.41 U	ND 0.4 U	ND 0.39 U	0.17 0.42 J
Chrysene	ND 0.4 U		0.55 0.4	0.086 0.4 J	0.12 0.4 J	ND 0.41 U	ND 0.4 U	ND 0.39 U	0.2 0.42 J
bis (2-Ethylhexyl) Phthalate	ND 0.4 U		0.53 0.4	0.21 0.4 J	0.28 0.4 J	0.09 0.41 J	0.061 0.4 J	ND 0.39 U	0.13 0.42 J
Di-n-Octyl Phthalate	ND 0.4 U		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U
Benzo (b) Fluoranthene	ND 0.4 U		0.59 0.4	0.11 0.4 J	0.24 0.4 J	0.058 0.41 J	ND 0.4 U	ND 0.39 U	0.22 0.42 J
Benzo (k) Fluoranthene	ND 0.4 U		0.24 0.4 J	0.045 0.4 J	0.061 0.4 J	ND 0.41 U	ND 0.4 U	ND 0.39 U	0.1 0.42 J
Benzo (a) Pyrene	ND 0.4 U		0.46 0.4	0.084 0.4 J	0.13 0.4 J	ND 0.41 U	ND 0.4 U	ND 0.39 U	0.18 0.42 J
Indeno (1,2,3-cd) Pyrene	ND 0.4 U		0.4 0.4	0.046 0.4 J	0.074 0.4 J	ND 0.41 U	ND 0.4 U	ND 0.39 U	0.11 0.42 J
Dibenzo (a,h) Anthracene	ND 0.4 U		0.063 0.4 J	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U
Benzo (g,h,i) Perylene	ND 0.4 U		0.33 0.4 J	ND 0.4 U	0.055 0.4 J	ND 0.41 U	ND 0.4 U	ND 0.39 U	0.1 0.42 J
Pyridine	ND 2 U		ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2.1 U
3-Picoline	ND 0.4 U		2.7 0.4	ND 0.4 U	ND 0.4 U	8 2	ND 0.4 U	ND 0.39 U	0.27 0.42 J
1-Methyl-2-pyrrolidinone	ND 0.79 U		ND 0.79 U	ND 0.81 U	ND 0.8 U	ND 0.81 U	ND 0.8 U	ND 0.78 U	ND 0.84 U
N,N-Dimethylacetamide									
Lab Name	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast
Analytical Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method
	8240	8240	8240	8240	8240	8240	8240	8240	8240
Source Document(s)	2	2	2	2	2	2	2	2	2

1 Supplemental Investigation Report - Chicago Recycle Center - Safety-Kleen Corp. Append D, Dec. 1991

2 Loose Lab Sheet by Weston-Gulf Coast, Inc. Dec. 1993, Jan. 1994

U Compound was not detected at or above the reporting limit

J Result is an estimated value below the reporting limit or a tetatively identified compound (TIC)

B Compound was found in the blank and the sample

ND Non-Detected

RL Reporting Limit

TABLE 6:
SOIL ANALYTICAL RESULTS
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	SB-9		SB-9 DUP1		SB-9 DUP1 RERUN		SB-10		SB-10		TB1		RB-1		RB-2		RB-3			
SAMPLING DATE	12/6/93		12/6/93		12/6/93		12/8/93		12/8/93		12/6/93		12/6/93		12/7/93		12/8/93			
SAMPLING DEPTH/INTERVAL	17.5-18'		18-19'		18-19'		7.5-9'		17.5-18.5'		-		-		-		-			
METALS - TCLP (mg/l)			18.5-19' RL	flag			8-9' RL	flag	18-18.5' RL	flag			RL	flag	RL	flag	Total RL	flag		
Silver			ND	0.05	U			ND	0.05	U			ND	0.03	U			ND	0.03	U
Arsenic			ND	0.1	U			ND	0.1	U			ND	0.002	U			ND	0.002	U
Barium			0.7	0.5				0.54	0.5				ND	0.05	U			ND	0.05	U
Cadmium			ND	0.05	U			ND	0.05	U			ND	0.01	U			ND	0.01	U
Chromium			ND	0.05	U			ND	0.05	U			ND	0.02	U			ND	0.02	U
Mercury			ND	0.01	U			ND	0.01	U			ND	0.0002	U			ND	0.0002	U
Lead			ND	0.05	U			ND	0.05	U			0.0051	0.002				0.0042	0.002	
Selenium			ND	0.1	U			ND	0.1	U			ND	0.002	U			ND	0.002	U
VOLATILE ORGANICS (mg/kg)	17.5-18' RL	flag	18-18.5' RL	flag			7.5-8' RL	flag	17.5-18' RL	flag	mg/l RL	flag	mg/l RL	flag	mg/l RL	flag	mg/l RL	flag		
Chloromethane	ND	0.012	U	ND	0.01	U	ND	0.012	U	ND	0.012	U	ND	0.01	U	ND	0.01	U		
Bromomethane	ND	0.012	U	ND	0.01	U	ND	0.012	U	ND	0.012	U	ND	0.01	U	ND	0.01	U		
Vinyl Chloride	ND	0.012	U	ND	0.01	U	0.018	0.012		0.047	0.012		ND	0.01	U	ND	0.01	U		
Chloroethane	ND	0.012	U	ND	0.01	U	0.2	0.12		0.13	0.012		ND	0.01	U	ND	0.01	U		
Methylene Chloride	ND	0.006	U	ND	0.005	U	0.051	0.006	B	3.2	0.059		ND	0.005	U	ND	0.005	U		
Acetone	0.058	0.012		0.11	0.01		0.052	0.012	B	1.1	0.12	B	ND	0.01	U	ND	0.01	U		
Carbon Disulfide	ND	0.006	U	ND	0.005	U	ND	0.006	U	0.005	0.006	J	ND	0.005	U	ND	0.005	U		
1,1-Dichloroethene	ND	0.006	U	ND	0.005	U	ND	0.006	U	0.5	0.059		ND	0.005	U	ND	0.005	U		
1,1-Dichloroethane	ND	0.006	U	ND	0.005	U	0.69	0.058		ND	0.006	U	ND	0.005	U	ND	0.005	U		
1,2-Dichloroethene (total)	ND	0.006	U	ND	0.005	U	0.038	0.006		1.1	0.059		ND	0.005	U	ND	0.005	U		
Chloroform	0.062	0.006		ND	0.005	U	ND	0.006	U	ND	0.006	U	ND	0.005	U	ND	0.005	U		
1,2-Dichloroethane	ND	0.006	U	ND	0.005	U	ND	0.006	U	0.17	0.006		ND	0.005	U	ND	0.005	U		
2-Butanone	ND	0.012	U	ND	0.01	U	ND	0.012	U	0.097	0.012		ND	0.01	U	ND	0.01	U		
1,1,1-Trichloroethane	ND	0.006	U	ND	0.005	U	0.045	0.006		36	3		ND	0.005	U	ND	0.005	U		
Carbon Tetrachloride	ND	0.006	U	ND	0.005	U	ND	0.006	U	ND	0.006	U	ND	0.005	U	ND	0.005	U		
Vinyl Acetate	ND	0.012	U	ND	0.01	U	ND	0.012	U	ND	0.012	U	ND	0.01	U	ND	0.01	U		
Bromodichloromethane	ND	0.006	U	ND	0.005	U	ND	0.006	U	ND	0.006	U	ND	0.005	U	ND	0.005	U		
1,2-Dichloropropane	ND	0.006	U	ND	0.005	U	ND	0.006	U	ND	0.006	U	ND	0.005	U	ND	0.005	U		
cis-1,3-Dichloropropene	ND	0.006	U	ND	0.005	U	ND	0.006	U	ND	0.006	U	ND	0.005	U	ND	0.005	U		
Trichloroethene	ND	0.006	U	ND	0.005	U	ND	0.006	U	ND	0.006	U	ND	0.005	U	ND	0.005	U		
Dibromochloromethane	ND	0.006	U	ND	0.005	U	ND	0.006	U	ND	0.006	U	ND	0.005	U	ND	0.005	U		
1,1,2-Trichloroethane	ND	0.006	U	ND	0.005	U	ND	0.006	U	0.07	0.006		ND	0.005	U	ND	0.005	U		
Benzene	ND	0.006	U	ND	0.005	U	0.33	0.058		0.24	0.059		ND	0.005	U	ND	0.005	U		
Trans-1,3-Dichloropropene	ND	0.006	U	ND	0.005	U	ND	0.006	U	ND	0.006	U	ND	0.005	U	ND	0.005	U		
Bromoform	ND	0.006	U	ND	0.005	U	ND	0.006	U	ND	0.006	U	ND	0.005	U	ND	0.005	U		
4-Methyl-2-Pentanone	ND	0.012	U	ND	0.01	U	0.035	0.012		0.098	0.012		ND	0.01	U	ND	0.01	U		
2-Hexanone	ND	0.012	U	ND	0.01	U	ND	0.012	U	ND	0.012	U	ND	0.01	U	ND	0.01	U		
Tetrachloroethene	ND	0.006	U	ND	0.005	U	0.017	0.006		ND	0.006	U	ND	0.005	U	ND	0.005	U		
1,1,2,2-Tetrachloroethane	ND	0.006	U	ND	0.005	U	ND	0.006	U	ND	0.006	U	ND	0.005	U	ND	0.005	U		
Toluene	ND	0.006	U	ND	0.005	U	1.8	0.058		0.31	0.059		ND	0.005	U	ND	0.005	U		
Chlorobenzene	ND	0.006	U	ND	0.005	U	ND	0.006	U	ND	0.006	U	ND	0.005	U	ND	0.005	U		
Ethylbenzene	ND	0.006	U	ND	0.005	U	0.45	0.058		1.2	0.059		ND	0.005	U	ND	0.005	U		
tyrene	ND	0.006	U	ND	0.005	U	0.014	0.006		0.18	0.006		ND	0.005	U	ND	0.005	U		
Total Xylenes	ND	0.006	U	ND	0.005	U	0.11	0.006		0.1	0.006		ND	0.005	U	ND	0.005	U		
Tetrahydrofuran	ND	0.006	U	ND	0.005	U	2.2	0.058		1.4	0.059		ND	0.005	U	ND	0.005	U		
Trichlorotrifluoroethane	ND	0.012	U	ND	0.01	U	0.028	0.012		0.5	0.12		ND	0.01	U	ND	0.01	U		

TABLE 6:
SOIL ANALYTICAL RESULTS
SAFETY-KLEEN SITE, CHICAGO, IL

LOCATION/ WELL I.D.	SB-9	SB-9 DUP1	SB-9 DUP1 RERUN	SB-10	SB-10	TB1	RB-1	RB-2	RB-3
SAMPLING DATE	12/6/93	12/6/93	12/6/93	12/8/93	12/8/93	12/6/93	12/6/93	12/7/93	12/8/93
SAMPLING DEPTH/INTERVAL	17.5-18'	18-19'	18-19'	7.5-9'	17.5-18.5'	-	-	-	-
SEMI-VOLATILE ORGANICS (mg/kg)	18.5-19' RL flag	18.5-19' RL flag	18.5-19' RL flag	8-9' RL flag	18-18.5' RL flag		mg/l RL flag	mg/l RL flag	mg/l RL flag
Phenol	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		0.003 0.01 J	0.03 0.01	ND 0.011 U
bis (2-Chloroethyl) Ether	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
2-Chlorophenol	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
1,3-Dichlorobenzene	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
1,4-Dichlorobenzene	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
Benzyl Alcohol	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
1,2-Dichlorobenzene	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
2-Methylphenol	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
bis (2-Chloroisopropyl) Ether	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
4-Methylphenol	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
N-Nitroso-Di-n-Propylamine	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
Hexachloroethane	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
Nitrobenzene	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
Isophorone	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
2-Nitrophenol	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
2,4-Dimethylphenol	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	0.001 0.011 J
Benzoic Acid	ND 2 U	ND 2 U	ND 2 U	ND 2.2 U	ND 2 U		0.035 0.05 J	0.047 0.05 J	0.016 0.055 J
bis (2-Chloroethoxy) Methane	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
2,4-Dichlorophenol	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
1,2,4-Trichlorobenzene	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
Naphthalene	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
4-Chloroaniline	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
Hexachlorobutadiene	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
4-Chloro-3-Methylphenol	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
2-Methylnaphthalene	ND 0.4 U	0.044 0.4 J	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
Hexachlorocyclopentadiene	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
2,4,6-Trichlorophenol	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
2,4,5-Trichlorophenol	ND 2 U	ND 2 U	ND 2 U	ND 2.2 U	ND 2 U		ND 0.05 U	ND 0.05 U	ND 0.055 U
2-Chloronaphthalene	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
2-Nitroaniline	ND 2 U	ND 2 U	ND 2 U	ND 2.2 U	ND 2 U		ND 0.05 U	ND 0.05 U	ND 0.055 U
Dimethyl Phthalate	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
Acenaphthylene	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
2,6-Dinitrotoluene	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
3-Nitroaniline	ND 2 U	ND 2 U	ND 2 U	ND 2.2 U	ND 2 U		ND 0.05 U	ND 0.05 U	ND 0.055 U
Acenaphthene	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
2,4-Dinitrophenol	ND 2 U	ND 2 U	ND 2 U	ND 2.2 U	ND 2 U		ND 0.05 U	ND 0.05 U	ND 0.055 U
4-Nitrophenol	ND 2 U	ND 2 U	ND 2 U	ND 2.2 U	ND 2 U		ND 0.05 U	ND 0.05 U	ND 0.055 U
Dibenzofuran	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
2,4-Dinitrotoluene	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
Diethylphthalate	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
4-Chlorophenyl-phenylether	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
uorene	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U
4-Nitroaniline	ND 2 U	ND 2 U	ND 2 U	ND 2.2 U	ND 2 U		ND 0.05 U	ND 0.05 U	ND 0.055 U
4,6-Dinitro-2-Methylphenol	ND 2 U	ND 2 U	ND 2 U	ND 2.2 U	ND 2 U		ND 0.05 U	ND 0.05 U	ND 0.055 U
N-Nitrosodiphenylamine (1)	ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.44 U	ND 0.4 U		ND 0.01 U	ND 0.01 U	ND 0.011 U

TABLE 7:
SOIL ANALYTICAL RESULTS
- QUALIFIED DATA (for 1993 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	B1			B1			B2			B2			B3			B3			B3			B4			B4		
SAMPLING DATE	10/22/91			10/22/91			10/22/91			10/22/91			10/23/91			10/23/91			10/23/91			10/23/91			10/23/91		
SAMPLING DEPTH/INTERVAL	2'-4'			4'-6'			2'-4'			8'-10'			6'-8'			8'-10'			10'-12'			6'-8'			8'-10'		
METALS - TCLP (mg/l)																											
Silver																											
Arsenic																											
Barium																											
Cadmium																											
Chromium																											
Mercury																											
Lead																											
Selenium																											
VOLATILE ORGANICS (mg/kg)	RL	flag		RL	flag		RL	flag		RL	flag		RL	flag		RL	flag		RL	flag		RL	flag		RL	flag	
Chloromethane	ND	0.012	U	ND	0.013	U	ND	0.015	U	ND	0.066	U	ND	0.013	U	ND	0.062	U	ND	0.013	U	ND	0.012	U	ND	0.013	U
Bromomethane																											
Vinyl Chloride																											
Chloroethane																											
Methylene Chloride																											
Acetone	0.022	0.012	B	0.031	0.013	B	0.025	0.015	B	0.18	0.066	B	0.041	0.013	B	ND	0.062	U	0.11	0.013	B	0.083	0.012	B	0.39	0.025	B
Carbon Disulfide																											
1,1-Dichloroethene																											
1,1-Dichloroethane																											
1,2-Dichloroethene (total)																											
Chloroform																											
1,2-Dichloroethane																											
2-Butanone																											
1,1,1-Trichloroethane	0.008	0.006		0.011	0.006		0.037	0.008		0.12	0.033		0.004	0.006	J	0.31	0.31		11	0.32		0.002	0.006	J	0.01	0.006	
Carbon Tetrachloride																											
Vinyl Acetate																											
Bromodichloromethane																											
1,2-Dichloropropane																											
cis-1,3-Dichloropropene																											
Trichloroethene	0.2	0.006		0.072	0.006		0.32	0.008		0.5	0.033		0.039	0.006		5.6	0.31		13	0.32		0.039	0.006		0.062	0.006	
Dibromochloromethane																											
1,1,2-Trichloroethane																											
Benzene																											
Trans-1,3-Dichloropropene																											
Bromoform																											
4-Methyl-2-Pentanone																											
2-Hexanone																											
Tetrachloroethene	0.004	0.006	J	ND	0.006	U	0.008	0.008		0.021	0.033	J	0.004	0.006	J	1.5	0.31		8.9	0.32		0.004	0.006	J	ND	0.006	U
1,1,2,2-Tetrachloroethane																											
Toluene	0.006	0.006		0.027	0.006		0.017	0.008		0.087	0.033		0.11	0.006		1.2	0.31		6.8	0.32		0.41	0.061		0.029	0.006	
Chlorobenzene																											
Ethylbenzene																											
Styrene																											
Total Xylenes																											
Tetrahydrofuran	ND	0.006	U	0.001	0.006	J	ND	0.008	U	0.018	0.033	J	0.036	0.006		0.37	0.031		0.086	0.006		0.2	0.006		0.026	0.006	
Trichlorotrifluoroethane	ND	0.012	U	0.002	0.013	J	ND	0.015	U	0.019	0.066	J	0.002	0.013	J	ND	0.062	U	0.17	0.013		ND	0.012	U	ND	0.013	U

TABLE 7:
SOIL ANALYTICAL RESULTS
QUALIFIED DATA (for 1993 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

LOCATION/ WELL I.D.	B1		B1		B2		B2		B3		B3		B3		B4		B4	
SAMPLING DATE	10/22/91		10/22/91		10/22/91		10/22/91		10/23/91		10/23/91		10/23/91		10/23/91		10/23/91	
SAMPLING DEPTH/INTERVAL	2'-4'		4'-6'		2'-4'		8'-10'		6'-8'		8'-10'		10'-12'		6'-8'		8'-10'	
SEMI-VOLATILE ORGANICS (mg/kg)	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag
Phenol																		
bis (2-Chloroethyl) Ether																		
2-Chlorophenol																		
1,3-Dichlorobenzene																		
1,4-Dichlorobenzene																		
Benzyl Alcohol																		
1,2-Dichlorobenzene																		
2-Methylphenol																		
bis (2-Chloroisopropyl) Ether																		
4-Methylphenol																		
N-Nitroso-Di-n-Propylamine																		
Hexachloroethane																		
Nitrobenzene																		
Isophorone																		
2-Nitrophenol																		
2,4-Dimethylphenol																		
Benzoic Acid																		
bis (2-Chloroethoxy) Methane																		
2,4-Dichlorophenol																		
1,2,4-Trichlorobenzene																		
Naphthalene																		
4-Chloroaniline																		
Hexachlorobutadiene																		
4-Chloro-3-Methylphenol																		
2-Methylnaphthalene																		
Hexachlorocyclopentadiene																		
2,4,6-Trichlorophenol																		
2,4,5-Trichlorophenol																		
2-Chloronaphthalene																		
2-Nitroaniline																		
Dimethyl Phthalate																		
Acenaphthylene																		
2,6-Dinitrotoluene																		
3-Nitroaniline																		
Acenaphthene																		
2,4-Dinitrophenol																		
4-Nitrophenol																		
Dibenzofuran																		
2,4-Dinitrotoluene																		
Diethylphthalate																		
4-Chlorophenyl-phenylether																		
uorene																		
4-Nitroaniline																		
4,6-Dinitro-2-Methylphenol																		
N-Nitrosodiphenylamine (1)																		
4-Bromophenyl-phenylether																		

TABLE 7:
SOIL ANALYTICAL RESULTS
- QUALIFIED DATA (for 1993 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	B1	B1	B2	B2	B3	B3	B3	B4	B4
SAMPLING DATE	10/22/91	10/22/91	10/22/91	10/22/91	10/23/91	10/23/91	10/23/91	10/23/91	10/23/91
SAMPLING DEPTH/INTERVAL	2'-4'	4'-6'	2'-4'	8'-10'	6'-8'	8'-10'	10'-12'	6'-8'	8'-10'
Hexachlorobenzene									
Pentachlorophenol									
Phenanthrene									
Anthracene									
Di-n-Butylphthalate									
Fluoranthene									
Pyrene									
Butylbenzylphthalate									
3,3'-Dichlorobenzidine									
Benzo (a) Anthracene									
Chrysene									
bis (2-Ethylhexyl) Phthalate									
Di-n-Octyl Phthalate									
Benzo (b) Fluoranthene									
Benzo (k)Fluoranthene									
Benzo (a) Pyrene									
Indeno (1,2,3-cd) Pyrene									
Dibenzo (a,h) Anthracene									
Benzo (g,h,i) Perylene									
Pyridine	ND 0.4 U	0.24 0.43 J	ND 0.5 U	ND 0.44 U	ND 0.42 U	ND 0.41 U	ND 0.42 U	ND 0.4 U	ND 0.42 U
3-Picoline	ND 0.4 U	40 2.2	ND 0.5 U	ND 0.44 U	1.1 0.42	0.63 0.41	1.8 0.42	11 0.81	0.75 0.42
1-Methyl-2-pyrrolidinone	ND 0.4 U	0.61 0.43	0.16 0.5 J	0.059 0.44 J	ND 0.42 U	ND 0.41 U	ND 0.42 U	ND 0.4 U	ND 0.42 U
N,N-Dimethylacetamide	ND 0.4 U	0.31 0.43 J	ND 0.5 U	ND 0.44 U	ND 0.42 U	ND 0.41 U	0.14 0.42 J	ND 0.4 U	ND 0.42 U
Lab Name	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast
Analytical Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method
	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270
Source Document(s)	1	1	1	1	1	1	1	1	1

1 Supplemental Investigation Report - Chicago Recycle Center - Safety-Kleen Corp. Append D, Dec. 1991
2 Loose Lab Sheet provided by Weston-Gulf Coast, Inc. Dec. 1993, Jan. 1994
U Compound was not detected at or above the reporting limit
J Result is an estimated value below the reporting limit or a tetatively identified compound (TIC)
B Compound was found in the blank and the sample
UR Analyte was not detected but the results are unreliable due to serious deficiencies in the analysis
ND Non-Detected
RL Reporting Limit
TB Trip Blank
RB Rinse Blank
J Red color indicates the corrected data qualifier

LTI, Limno-Tech, Inc.

TABLE 7:
SOIL ANALYTICAL RESULTS
- QUALIFIED DATA (for 1993 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	B4		B4		B4		B4		B5		B5		B5		B5		B5	
SAMPLING DATE	11/4/91		11/4/91		11/4/91		11/4/91		10/24/91		10/24/91		10/24/91		10/24/91		10/24/91	
SAMPLING DEPTH/INTERVAL	10'-12'		12'-14'		14'-16'		16'-18'		2'-4'		4'-6'		6'-8'		8'-10'		10'-12'	
SEMI-VOLATILE ORGANICS (mg/kg)	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag
Phenol																		
bis (2-Chloroethyl) Ether																		
2-Chlorophenol																		
1,3-Dichlorobenzene																		
1,4-Dichlorobenzene																		
Benzyl Alcohol																		
1,2-Dichlorobenzene																		
2-Methylphenol																		
bis (2-Chloroisopropyl) Ether																		
4-Methylphenol																		
N-Nitroso-Di-n-Propylamine																		
Hexachloroethane																		
Nitrobenzene																		
Isophorone																		
2-Nitrophenol																		
2,4-Dimethylphenol																		
Benzoic Acid																		
bis (2-Chloroethoxy) Methane																		
2,4-Dichlorophenol																		
1,2,4-Trichlorobenzene																		
Naphthalene																		
4-Chloroaniline																		
Hexachlorobutadiene																		
4-Chloro-3-Methylphenol																		
2-Methylnaphthalene																		
Hexachlorocyclopentadiene																		
2,4,6-Trichlorophenol																		
2,4,5-Trichlorophenol																		
2-Chloronaphthalene																		
2-Nitroaniline																		
Dimethyl Phthalate																		
Acenaphthylene																		
2,6-Dinitrotoluene																		
3-Nitroaniline																		
Acenaphthene																		
2,4-Dinitrophenol																		
4-Nitrophenol																		
Dibenzofuran																		
2,4-Dinitrotoluene																		
Diethylphthalate																		
4-Chlorophenyl-phenylether																		
Fluorene																		
4-Nitroaniline																		
4,6-Dinitro-2-Methylphenol																		
N-Nitrosodiphenylamine (1)																		
4-Bromophenyl-phenylether																		

TABLE 7:
SOIL ANALYTICAL RESULTS
- QUALIFIED DATA (for 1993 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	B4	B4	B4	B4	B4	B5	B5	B5	B5	B5
SAMPLING DATE	11/4/91	11/4/91	11/4/91	11/4/91	11/4/91	10/24/91	10/24/91	10/24/91	10/24/91	10/24/91
SAMPLING DEPTH/INTERVAL	10'-12'	12'-14'	14'-16'	16'-18'	18'-20'	2'-4'	4'-6'	6'-8'	8'-10'	10'-12'
4-Bromophenyl-phenylether										
Hexachlorobenzene										
Pentachlorophenol										
Phenanthrene										
Anthracene										
Di-n-Butylphthalate										
Fluoranthene										
Pyrene										
Butylbenzylphthalate										
3,3'-Dichlorobenzidine										
Benzo (a) Anthracene										
Chrysene										
bis (2-Ethylhexyl) Phthalate										
Di-n-Octyl Phthalate										
Benzo (b) Fluoranthene										
Benzo (k)Fluoranthene										
Benzo (a) Pyrene										
Indeno (1,2,3-cd) Pyrene										
Dibenzo (a,h) Anthracene										
Benzo (g,h,i) Perylene										
Pyridine	ND 0.4 U	ND 0.39 U		ND 0.4 U		31 8	83 20	330 21	280 42	120 8.3
3-Picoline	0.47 0.4	ND 0.39 U		0.15 0.4 J		330 20	410 20	1400 83	1300 420	660 42
1-Methyl-2-pyrrolidinone	ND 0.4 U	ND 0.39 U		ND 0.4 U		13 8	31 4.1	52 8.3	64 8.4	310 21
N,N-Dimethylacetamide	ND 0.4 U	ND 0.39 U		ND 0.4 U		1.8 8 J	320 20	3400 410	5200 420	3000 420
Lab Name	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast	Weston-Gulf Coast
Analytical Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method	E.P.A. Method
	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270	8240 &8270
Source Document(s)	1	1	1	1	1	1	1	1	1	1

1 Supplemental Investigation Report - Chicago Recycle Center - Safety-Kleen Corp. Append D, Dec. 1991
2 Loose Lab Sheet provided by Weston-Gulf Coast, Inc. Dec. 1993, Jan. 1994
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RL Reporting Limit
TB Trip Blank
RB Rinse Blank
J Red color indicates the corrected data qualifier

TABLE 7:
SOIL ANALYTICAL RESULTS
- QUALIFIED DATA (for 1993 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	B6			B6			B8			B8			MW-1			MW-1			MW-2			MW-2			MW-3			MW-3		
SAMPLING DATE	10/25/91			10/25/91			10/23/91			10/23/91			10/24/91			10/24/91			10/24/91			10/24/91			10/25/91			10/25/91		
SAMPLING DEPTH/INTERVAL	8'-10'			4'-6'			2'-4'			8'-10'			4'-6'			6'-8'			6'-8'			10'-12'			4'-6'			10'-12'		
METALS - TCLP (mg/l)																														
Silver																														
Arsenic																														
Barium																														
Cadmium																														
Chromium																														
Mercury																														
Lead																														
Selenium																														
VOLATILE ORGANICS (mg/kg)	RL	flag		RL	flag		RL	flag		RL	flag		RL	flag		RL	flag		RL	flag		RL	flag		RL	flag		RL	flag	
Chloromethane	ND	0.064	U	ND	0.25	U	ND	0.25	U	ND	0.13	U	ND	0.12	U	ND	0.25	U	ND	0.25	U	ND	0.25	U	ND	0.13	U	ND	0.012	U
Bromomethane																														
Vinyl Chloride																														
Chloroethane																														
Methylene Chloride																														
Acetone	0.048	0.064	J	2.2	0.25	B	ND	0.25	U	0.43	0.13	B	0.057	0.12	JB	0.37	0.25	B	3.4	0.25	B	0.85	0.25	B	0.31	0.13	B	0.31	0.012	
Carbon Disulfide																														
1,1-Dichloroethene																														
1,1-Dichloroethane																														
1,2-Dichloroethene (total)																														
Chloroform																														
1,2-Dichloroethane																														
2-Butanone																														
1,1,1-Trichloroethane	ND	0.032	U	ND	0.12	U	ND	0.13	U	ND	0.063	U	0.038	0.062	J	ND	0.12	U	0.46	0.12		0.52	0.12		0.027	0.066	J	0.011	0.006	
Carbon Tetrachloride																														
Vinyl Acetate																														
Bromodichloromethane																														
1,2-Dichloropropane																														
cis-1,3-Dichloropropene																														
Trichloroethene	0.047	0.032		0.11	0.12	J	ND	0.13	U	13	0.32		0.6	0.062		0.8	0.12		8.4	0.31		5.2	0.31		0.34	0.066		0.055	0.006	
Dibromochloromethane																														
1,1,2-Trichloroethane																														
Benzene																														
Trans-1,3-Dichloropropene																														
Bromoform																														
4-Methyl-2-Pentanone																														
2-Hexanone																														
Tetrachloroethene	ND	0.032	U	ND	0.12	U	ND	0.13	U	4.7	0.32		ND	0.062	U	ND	0.12	U	0.61	0.12		0.4	0.12		ND	0.066	U	ND	0.006	U
1,1,2,2-Tetrachloroethane																														
Toluene	0.036	0.032		5.7	0.62		6.9	1.3		0.85	0.063		0.54	0.062		2.3	0.12		3.5	0.12		2.3	0.12		0.46	0.066		0.031	0.006	
Chlorobenzene																														
Ethylbenzene																														
Styrene																														
Total Xylenes																														
Tetrahydrofuran	0.97	0.032		3.4	0.12		16	1.3		2.4	0.063		0.36	0.062		0.31	0.12		1.4	0.12		0.96	0.12		1.5	0.066		0.03	0.006	
Trichlorotrifluoroethane	ND	0.064	U	ND	0.25	U	ND	0.25	U	0.43	0.13		ND	0.12	U	ND	0.25	U	ND	0.25	U	ND	0.25	U	ND	0.13	U	ND	0.012	U

TABLE 7:
SOIL ANALYTICAL RESULTS
- QUALIFIED DATA (for 1993 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	B6		B6		B8		B8		MW-1		MW-1		MW-2		MW-2		MW-3		MW-3	
SAMPLING DATE	10/25/91		10/25/91		10/23/91		10/23/91		10/24/91		10/24/91		10/24/91		10/24/91		10/25/91		10/25/91	
SAMPLING DEPTH/INTERVAL	8'-10'		4'-6'		2'-4'		8'-10'		4'-6'		6'-8'		6'-8'		10'-12'		4'-6'		10'-12'	
SEMI-VOLATILE ORGANICS (mg/kg)	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag	RL	flag
Phenol																				
bis (2-Chloroethyl) Ether																				
2-Chlorophenol																				
1,3-Dichlorobenzene																				
1,4-Dichlorobenzene																				
Benzyl Alcohol																				
1,2-Dichlorobenzene																				
2-Methylphenol																				
bis (2-Chloroisopropyl) Ether																				
4-Methylphenol																				
N-Nitroso-Di-n-Propylamine																				
Hexachloroethane																				
Nitrobenzene																				
Isophorone																				
2-Nitrophenol																				
2,4-Dimethylphenol																				
Benzoic Acid																				
bis (2-Chloroethoxy) Methane																				
2,4-Dichlorophenol																				
1,2,4-Trichlorobenzene																				
Naphthalene																				
4-Chloroaniline																				
Hexachlorobutadiene																				
4-Chloro-3-Methylphenol																				
2-Methylnaphthalene																				
Hexachlorocyclopentadiene																				
2,4,6-Trichlorophenol																				
2,4,5-Trichlorophenol																				
2-Chloronaphthalene																				
2-Nitroaniline																				
Dimethyl Phthalate																				
Acenaphthylene																				
2,6-Dinitrotoluene																				
3-Nitroaniline																				
Acenaphthene																				
2,4-Dinitrophenol																				
4-Nitrophenol																				
Dibenzofuran																				
2,4-Dinitrotoluene																				
Diethylphthalate																				
4-Chlorophenyl-phenylether																				
luorene																				
4-Nitroaniline																				
4,6-Dinitro-2-Methylphenol																				
N-Nitrosodiphenylamine (1)																				
4-Bromophenyl-phenylether																				

TABLE 7:
SOIL ANALYTICAL RESULTS
- QUALIFIED DATA (for 1993 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	SB-4		SB-4 RERUN		SB-4		SB-4 DUP4		SB-5		SB-5 DUP3		SB-5		SB-6		SB-6	
SAMPLING DATE	12/7/93		12/7/93		12/7/93		12/7/93		12/7/93		12/7/93		12/7/93		12/6/93		12/6/93	
SAMPLING DEPTH/INTERVAL	5-6'		5-6'		16.5-17'		17-18'		8.5-9.5'		9.5-10'		18.5-20'		6-7'		17.5-18.5'	
SEMI-VOLATILE ORGANICS (mg/kg)	5.5-6' RL	flag	5.5-6'				17.5-18' RL	flag	9-9.5' RL	flag	9.5-10' RL	flag	19-20' RL	flag	6.5-7' RL	flag	18-18.5' RL	flag
Phenol	ND 0.41	UR	ND 0.41	UJR			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
bis (2-Chloroethyl) Ether	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
2-Chlorophenol	ND 0.41	UR	ND 0.41	UJR			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
1,3-Dichlorobenzene	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
1,4-Dichlorobenzene	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Benzyl Alcohol	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
1,2-Dichlorobenzene	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
2-Methylphenol	ND 0.41	UR	ND 0.41	UJR			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
bis (2-Chloroisopropyl) Ether	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
4-Methylphenol	0.05 0.41	J	0.82 0.41	J			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
N-Nitroso-Di-n-Propylamine	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Hexachloroethane	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Nitrobenzene	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Isophorone	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
2-Nitrophenol	ND 0.41	UR	ND 0.41	UJR			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
2,4-Dimethylphenol	ND 0.41	UR	ND 0.41	UJR			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Benzoic Acid	ND 2.1	UR	0.062 2.1	J			ND 1.9	U	ND 2	U	ND 2	U	ND 2	U	ND 2.1	U	ND 2	U
bis (2-Chloroethoxy) Methane	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
2,4-Dichlorophenol	ND 0.41	UR	ND 0.41	UJR			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
1,2,4-Trichlorobenzene	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Naphthalene	ND 0.41	UR	0.058 0.41	J			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
4-Chloroaniline	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Hexachlorobutadiene	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
4-Chloro-3-Methylphenol	ND 0.41	UR	ND 0.41	UJR			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
2-Methylnaphthalene	ND 0.41	UR	0.046 0.41	J			0.059 0.38	J	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	0.046 0.4	J
Hexachlorocyclopentadiene	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
2,4,6-Trichlorophenol	ND 0.41	UR	ND 0.41	UJR			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
2,4,5-Trichlorophenol	ND 2.1	UR	ND 2.1	UJR			ND 1.9	U	ND 2	U	ND 2	U	ND 2	U	ND 2.1	U	ND 2	U
2-Chloronaphthalene	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
2-Nitroaniline	ND 2.1	UR	ND 2.1	UJ			ND 1.9	U	ND 2	U	ND 2	U	ND 2	U	ND 2.1	U	ND 2	U
Dimethyl Phthalate	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Acenaphthylene	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
2,6-Dinitrotoluene	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
3-Nitroaniline	ND 2.1	UR	ND 2.1	UJ			ND 1.9	U	ND 2	U	ND 2	U	ND 2	U	ND 2.1	U	ND 2	U
Acenaphthene	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
2,4-Dinitrophenol	ND 2.1	UR	ND 2.1	UJR			ND 1.9	U	ND 2	U	ND 2	U	ND 2	U	ND 2.1	U	ND 2	U
4-Nitrophenol	ND 2.1	UR	ND 2.1	UJR			ND 1.9	U	ND 2	U	ND 2	U	ND 2	U	ND 2.1	U	ND 2	U
Dibenzofuran	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
2,4-Dinitrotoluene	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Diethylphthalate	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
4-Chlorophenyl-phenylether	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Fluorene	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
2-Nitroaniline	ND 2.1	UR	ND 2.1	UJ			ND 1.9	U	ND 2	U	ND 2	U	ND 2	U	ND 2.1	U	ND 2	U
4,6-Dinitro-2-Methylphenol	ND 2.1	UR	ND 2.1	UJR			ND 1.9	U	ND 2	U	ND 2	U	ND 2	U	ND 2.1	U	ND 2	U
N-Nitrosodiphenylamine (1)	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
4-Bromophenyl-phenylether	ND 0.41	UR	ND 0.41	UJ			ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U

TABLE 7:
SOIL ANALYTICAL RESULTS
- QUALIFIED DATA (for 1993 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	SB-4		SB-4 RERUN		SB-4	SB-4 DUP4		SB-5		SB-5 DUP3		SB-5		SB-6		SB-6	
SAMPLING DATE	12/7/93		12/7/93		12/7/93	12/7/93		12/7/93		12/7/93		12/7/93		12/6/93		12/6/93	
SAMPLING DEPTH/INTERVAL	5-6'		5-6'		16.5-17'	17-18'		8.5-9.5'		9.5-10'		18.5-20'		6-7'		17.5-18.5'	
4-Bromophenyl-phenylether	ND 0.41	UR	ND 0.41	UJ		ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Hexachlorobenzene	ND 0.41	UR	ND 0.41	UJ		ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Pentachlorophenol	ND 2.1	UR	ND 2.1	UJR		ND 1.9	U	ND 2	U	ND 2	U	ND 2	U	ND 2.1	U	ND 2	U
Phenanthrene	ND 0.41	UR	0.05 0.41	J		0.07 0.38	J	0.063 0.41	J	0.057 0.41	J	ND 0.4	U	ND 0.42	U	ND 0.4	U
Anthracene	ND 0.41	UR	ND 0.41	UJ		ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Di-n-Butylphthalate	ND 0.41	UR	0.33 0.41	UJ		ND 0.38	BU	ND 0.41	BU	ND 0.41	BU	ND 0.4	BU	ND 0.42	BU	ND 0.4	BU
Fluoranthene	ND 0.41	UR	0.21 0.41	J		ND 0.38	U	0.063 0.41	J	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Pyrene	ND 0.41	UR	0.22 0.41	J		ND 0.38	U	0.063 0.41	J	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Butylbenzylphthalate	ND 0.41	UR	ND 0.41	UJ		ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
3,3'-Dichlorobenzidine	ND 0.83	UR	ND 0.83	UJ		ND 0.77	U	ND 0.81	U	ND 0.81	U	ND 0.81	U	ND 0.84	U	ND 0.79	U
Benzo (a) Anthracene	ND 0.41	UR	0.087 0.41	J		ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Chrysene	ND 0.41	UR	0.095 0.41	J		ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
bis (2-Ethylhexyl) Phthalate	ND 0.41	UR	0.087 0.41	J		ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Di-n-Octyl Phthalate	ND 0.41	UR	ND 0.41	UJ		ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Benzo (b) Fluoranthene	ND 0.41	UR	0.12 0.41	J		ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Benzo (k)Fluoranthene	ND 0.41	UR	0.087 0.41	J		ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Benzo (a) Pyrene	ND 0.41	UR	0.046 0.41	J		ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Indeno (1,2,3-cd) Pyrene	ND 0.41	UR	ND 0.41	UJ		ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Dibenzo (a,h) Anthracene	ND 0.41	UR	ND 0.41	UJ		ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Benzo (g,h,i) Perylene	ND 0.41	UR	0.058 0.41	J		ND 0.38	U	ND 0.41	U	ND 0.41	U	ND 0.4	U	ND 0.42	U	ND 0.4	U
Pyridine	ND 2.1	UR	ND 2.1	UJ		ND 1.9	U	ND 2	U	ND 2	U	ND 2	U	ND 2.1	U	ND 2	U
3-Picoline	8.5 0.41	J	9.7 0.41	J		0.095 0.38	J	ND 0.41	U	ND 0.41	U	ND 0.4	U	0.37 0.42	J	ND 0.4	U
1-Methyl-2-pyrrolidinone	ND 0.83	UR	ND 0.83	UJ		ND 0.77	U	ND 0.81	U	ND 0.81	U	ND 0.81	U	ND 0.84	U	ND 0.79	U
N,N-Dimethylacetamide																	
Lab Name	Weston-Gulf Coast		Weston-Gulf Coast		Weston-Gulf Coast	Weston-Gulf Coast		Weston-Gulf Coast		Weston-Gulf Coast		Weston-Gulf Coast		Weston-Gulf Coast		Weston-Gulf Coast	
Analytical Method	E.P.A. Method		E.P.A. Method		E.P.A. Method	E.P.A. Method		E.P.A. Method		E.P.A. Method		E.P.A. Method		E.P.A. Method		E.P.A. Method	
	8240		8240		8240	8240		8240		8240		8240		8240		8240	
Source Document(s)	2		2		2	2		2		2		2		2		2	

1 Supplemental Investigation Report - Chicago Recycle Center - Safety-Kleen Corp. Append D, Dec. 1991
2 Loose Lab Sheet provided by Weston-Gulf Coast, Inc. Dec. 1993, Jan. 1994
U Compound was not detected at or above the reporting limit
J Result is an estimated value below the reporting limit or a tetatively identified compound (TIC)
B Compound was found in the blank and the sample
UR Analyte was not detected but the results are unreliable due to serious deficiencies in the analysis
ND Non-Detected
RL Reporting Limit
TB Trip Blank
RB Rinse Blank
J Red color indicates the corrected data qualifier

TABLE 7:
SOIL ANALYTICAL RESULTS
- QUALIFIED DATA (for 1993 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	SB-6 RERUN		SB-7		SB-7		SB-7 DUP5		SB-8		SB-8		SB-8		SB-9		SB-9	
SAMPLING DATE	12/6/93		12/8/93		12/8/93		12/8/93		12/8/93		12/8/93		12/8/93		12/6/93		12/6/93	
SAMPLING DEPTH/INTERVAL	17.5-18		8-8.5'		11.5-12'		12.5-13'		7.5-8.5'		17.5-18.5'		19.5-20'		8-9'		17.5-18'	
METALS - TCLP (mg/l)			8.5-9' RL	flag	12-12.5' RL	flag	12.5-13' RL	flag	8-8.5' RL	flag	18-18.5' RL	flag	20-20.5' RL	flag	8.5-9' RL	flag		
Silver			ND 0.05	U	ND 0.05	U	ND 0.05	U	ND 0.05	U	ND 0.05	U	ND 0.05	U	ND 0.05	U		
Arsenic			ND 0.1	U	ND 0.1	U	ND 0.1	U	ND 0.1	U	ND 0.1	U	ND 0.1	U	ND 0.1	U		
Barium			ND 0.5	U	0.69 0.5		0.87 0.5		ND 0.5	U	ND 0.5	U	ND 0.5	U	1.8 0.5			
Cadmium			ND 0.05	U	ND 0.05	U	ND 0.05	U	ND 0.05	U	ND 0.05	U	ND 0.05	U	ND 0.05	U		
Chromium			ND 0.05	U	ND 0.05	U	ND 0.05	U	ND 0.05	U	ND 0.05	U	ND 0.05	U	ND 0.05	U		
Mercury			ND 0.01	U	ND 0.01	U	ND 0.01	U	ND 0.01	U	ND 0.01	U	ND 0.01	U	ND 0.01	U		
Lead			ND 0.05	U	ND 0.05	U	ND 0.05	U	ND 0.05	U	ND 0.05	U	ND 0.05	U	ND 0.05	U		
Selenium			ND 0.1	U	ND 0.1	U	ND 0.1	U	ND 0.1	U	ND 0.1	U	ND 0.1	U	ND 0.1	U		
VOLATILE ORGANICS (mg/kg)	17.5-18' RL	flag	8-8.5' RL	flag	11.5-12' RL	flag			7.5-8' RL	flag	17.5-18' RL	flag	19.5-20' RL	flag	8-8.5' RL	flag	7.5-18' RL	flag
Chloromethane	ND 0.012	U	ND 0.012	U	ND 0.012	U			ND 0.012	U	ND 0.011	U	ND 0.012	U	ND 0.012	U	ND 0.012	U
Bromomethane	ND 0.012	U	ND 0.012	U	ND 0.012	U			ND 0.012	U	ND 0.011	U	ND 0.012	U	ND 0.012	U	ND 0.012	U
Vinyl Chloride	ND 0.012	U	ND 0.012	U	ND 0.012	U			ND 0.012	U	ND 0.011	U	ND 0.012	U	ND 0.012	U	ND 0.012	U
Chloroethane	ND 0.012	U	ND 0.012	U	ND 0.012	U			0.03 0.012		0.068 0.011		ND 0.012	U	ND 0.012	U	ND 0.012	U
Methylene Chloride	ND 0.006	U	0.009 0.006	BU	0.036 0.006	BU			0.007 0.006	BU	0.14 0.006	BJ	0.14 0.006	BJ	ND 0.006	U	ND 0.006	U
Acetone	0.12 0.012		0.66 0.12	BJ	1.8 0.58	J			0.029 0.012	BU	ND 0.011	U	ND 0.012	U	0.04 0.012		0.058 0.012	
Carbon Disulfide	ND 0.006	U	0.004 0.006	J	ND 0.006	U			ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U
1,1-Dichloroethene	ND 0.006	U	ND 0.006	U	ND 0.006	U			ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U
1,1-Dichloroethane	ND 0.006	U	0.048 0.006		ND 0.006	U			0.006 0.006		6.1 0.11		0.7 0.058		0.017 0.006		ND 0.006	U
1,2-Dichloroethene (total)	ND 0.006	U	0.043 0.006		ND 0.006	U			ND 0.006	U	0.026 0.006		0.007 0.006		0.005 0.006	J	ND 0.006	U
Chloroform	ND 0.006	U	ND 0.006	U	ND 0.006	U			ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U	0.062 0.006	
1,2-Dichloroethane	ND 0.006	U	ND 0.006	U	0.024 0.006				ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U
2-Butanone	ND 0.012	U	0.037 0.012		0.2 0.012				ND 0.012	U	0.014 0.011		ND 0.012	U	ND 0.012	U	ND 0.012	U
1,1,1-Trichloroethane	ND 0.006	U	0.006 0.006		ND 0.006	U			ND 0.006	U	1.2 0.11		0.2 0.006		ND 0.006	U	ND 0.006	U
Carbon Tetrachloride	ND 0.006	U	ND 0.006	U	ND 0.006	U			ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U
Vinyl Acetate	ND 0.012	U	ND 0.012	U	ND 0.012	U			ND 0.012	U	ND 0.011	U	ND 0.012	U	ND 0.012	U	ND 0.012	U
Bromodichloromethane	ND 0.006	U	ND 0.006	U	ND 0.006	U			ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U
1,2-Dichloropropane	ND 0.006	U	ND 0.006	U	ND 0.006	U			ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U
cis-1,3-Dichloropropene	ND 0.006	U	ND 0.006	U	ND 0.006	U			ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U
Trichloroethene	ND 0.006	U	0.004 0.006	J	ND 0.006	U			ND 0.006	U	17 5.6	J	2.4 0.058		ND 0.006	U	ND 0.006	U
Dibromochloromethane	ND 0.006	U	ND 0.006	U	ND 0.006	U			ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U
1,1,2-Trichloroethane	ND 0.006	U	ND 0.006	U	ND 0.006	U			ND 0.006	U	0.007 0.006		ND 0.006	U	ND 0.006	U	ND 0.006	U
Benzene	ND 0.006	U	0.11 0.006		0.38 0.29	J			0.024 0.006		0.022 0.006		0.004 0.006	J	0.006 0.006		ND 0.006	U
Trans-1,3-Dichloropropene	ND 0.006	U	ND 0.006	U	ND 0.006	U			ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U
Bromoform	ND 0.006	U	ND 0.006	U	ND 0.006	U			ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U
4-Methyl-2-Pentanone	ND 0.012	U	0.26 0.12		0.023 0.012				ND 0.012	U	ND 0.011	U	ND 0.012	U	ND 0.012	U	ND 0.012	U
2-Hexanone	ND 0.012	U	ND 0.012	U	ND 0.012	U			ND 0.012	U	ND 0.011	U	ND 0.012	U	ND 0.012	U	ND 0.012	U
Tetrachloroethene	ND 0.006	U	ND 0.006	U	ND 0.006	U			ND 0.006	U	16 5.6	J	1.8 0.058		ND 0.006	U	ND 0.006	U
1,1,2,2-Tetrachloroethane	ND 0.006	U	ND 0.006	U	ND 0.006	U			ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U
Toluene	ND 0.006	U	0.17 0.006		0.74 0.29	J			1.7 0.06		25 5.6	J	2.1 0.058		0.003 0.006	J	ND 0.006	U
Chlorobenzene	ND 0.006	U	ND 0.006	U	ND 0.006	U			ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U
Ethylbenzene	ND 0.006	U	2 0.058		1.4 0.29	J			ND 0.006	U	0.025 0.006		ND 0.006	U	ND 0.006	U	ND 0.006	U
tyrene	ND 0.006	U	0.006 0.006		3.5 0.29	J			ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U	ND 0.006	U
Total Xylenes	ND 0.006	U	0.28 0.058		0.071 0.006				ND 0.006	U	0.083 0.006		0.014 0.006		ND 0.006	U	ND 0.006	U
Tetrahydrofuran	ND 0.006	U	1.7 0.29	J	0.21 0.006				6.9 0.3	J	0.26 0.006		0.091 0.006		ND 0.006	U	ND 0.006	U
Trichlorotrifluoroethane	ND 0.012	U	0.26 0.12		24 2.3	J			ND 0.012	U	260 11	J	24 12	J	ND 0.012	U	ND 0.012	U

TABLE 7:
SOIL ANALYTICAL RESULTS
- QUALIFIED DATA (for 1993 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	SB-6 RERUN	SB-7	SB-7	SB-7 DUP5	SB-8	SB-8	SB-8	SB-9	SB-9
SAMPLING DATE	12/6/93	12/8/93	12/8/93	12/8/93	12/8/93	12/8/93	12/8/93	12/6/93	12/6/93
SAMPLING DEPTH/INTERVAL	17.5-18	8-8.5'	11.5-12'	12.5-13'	7.5-8.5'	17.5-18.5'	19.5-20'	8-9'	17.5-18'
SEMI-VOLATILE ORGANICS (mg/kg)		8.5-9' RL flag	12-12.5' RL flag	12.5-13' RL flag	8-8.5' RL flag	18-18.5' RL flag	20-20.5' RL flag	8.5-9' RL flag	
Phenol		ND 0.4 U	4.1 0.4	1.6 0.4	2.6 0.41	ND 0.4 U	ND 0.39 U	ND 0.42 U	
bis (2-Chloroethyl) Ether		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
2-Chlorophenol		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
1,3-Dichlorobenzene		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
1,4-Dichlorobenzene		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
Benzyl Alcohol		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
1,2-Dichlorobenzene		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
2-Methylphenol		ND 0.4 U	0.06 0.4 J	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
bis (2-Chloroisopropyl) Ether		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
4-Methylphenol		0.18 0.4 J	ND 0.4 U	ND 0.4 U	0.46 0.41	ND 0.4 U	ND 0.39 U	ND 0.42 U	
N-Nitroso-Di-n-Propylamine		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
Hexachloroethane		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
Nitrobenzene		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
Isophorone		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
2-Nitrophenol		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
2,4-Dimethylphenol		0.6 0.4	ND 0.4 U	ND 0.4 U	0.86 0.41	ND 0.4 U	ND 0.39 U	ND 0.42 U	
Benzoic Acid		ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2.1 U	
bis (2-Chloroethoxy) Methane		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
2,4-Dichlorophenol		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
1,2,4-Trichlorobenzene		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
Naphthalene		0.14 0.4 J	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
4-Chloroaniline		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
Hexachlorobutadiene		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
4-Chloro-3-Methylphenol		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
2-Methylnaphthalene		0.11 0.4 J	0.045 0.4 J	0.047 0.4 J	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
Hexachlorocyclopentadiene		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
2,4,6-Trichlorophenol		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
2,4,5-Trichlorophenol		ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2.1 U	
2-Chloronaphthalene		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
2-Nitroaniline		ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2.1 U	
Dimethyl Phthalate		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
Acenaphthylene		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
2,6-Dinitrotoluene		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
3-Nitroaniline		ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2.1 U	
Acenaphthene		0.12 0.4 J	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
2,4-Dinitrophenol		ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2.1 U	
4-Nitrophenol		ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2.1 U	
Dibenzofuran		0.067 0.4 J	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
2,4-Dinitrotoluene		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
Diethylphthalate		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
4-Chlorophenyl-phenylether		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
fluorene		0.15 0.4 J	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
4-Nitroaniline		ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2.1 U	
4,6-Dinitro-2-Methylphenol		ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2 U	ND 2.1 U	
N-Nitrosodiphenylamine (1)		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	
4-Bromophenyl-phenylether		ND 0.4 U	ND 0.4 U	ND 0.4 U	ND 0.41 U	ND 0.4 U	ND 0.39 U	ND 0.42 U	

TABLE 7:
SOIL ANALYTICAL RESULTS
- QUALIFIED DATA (for 1993 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	SB-9 DUP1			SB-9 RERUN			SB-10			SB-10			TB1	RB-1			RB-2			RB-3		
SAMPLING DATE	12/6/93			12/6/93			12/8/93			12/8/93			12/6/93	12/6/93			12/7/93			12/8/93		
SAMPLING DEPTH/INTERVAL	18-19'			18-19'			7.5-9'			17.5-18.5'			-	-			-			-		
SEMI-VOLATILE ORGANICS (mg/kg)	18.5-19' RL	flag		18.5-19' RL	flag		8-9' RL	flag		18-18.5' RL	flag			mg/l RL	flag		mg/l RL	flag		mg/l RL	flag	
Phenol	ND 0.4	UJR		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			0.003 0.01	J		0.03 0.01			ND 0.011	U	
bis (2-Chloroethyl) Ether	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
2-Chlorophenol	ND 0.4	UJR		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
1,3-Dichlorobenzene	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
1,4-Dichlorobenzene	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
Benzyl Alcohol	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
1,2-Dichlorobenzene	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
2-Methylphenol	ND 0.4	UJR		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
bis (2-Chloroisopropyl) Ether	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
4-Methylphenol	ND 0.4	UR		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
N-Nitroso-Di-n-Propylamine	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
Hexachloroethane	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
Nitrobenzene	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
Isophorone	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
2-Nitrophenol	ND 0.4	UJR		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
2,4-Dimethylphenol	ND 0.4	UJR		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		0.001 0.011	J	
Benzoic Acid	ND 2	UJR		ND 2	UJ		ND 2.2	U		ND 2	U			0.035 0.05	J		0.047 0.05	J		0.016 0.055	J	
bis (2-Chloroethoxy) Methane	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
2,4-Dichlorophenol	ND 0.4	UJR		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
1,2,4-Trichlorobenzene	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
Naphthalene	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
4-Chloroaniline	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
Hexachlorobutadiene	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
4-Chloro-3-Methylphenol	ND 0.4	UJR		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
2-Methylnaphthalene	ND 0.4	UJ		0.044 0.4	J		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
Hexachlorocyclopentadiene	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
2,4,6-Trichlorophenol	ND 0.4	UJR		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
2,4,5-Trichlorophenol	ND 2	UJR		ND 2	UJ		ND 2.2	U		ND 2	U			ND 0.05	U		ND 0.05	U		ND 0.055	U	
2-Chloronaphthalene	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
2-Nitroaniline	ND 2	UJ		ND 2	UJ		ND 2.2	U		ND 2	U			ND 0.05	U		ND 0.05	U		ND 0.055	U	
Dimethyl Phthalate	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
Acenaphthylene	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
2,6-Dinitrotoluene	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
3-Nitroaniline	ND 2	UJ		ND 2	UJ		ND 2.2	U		ND 2	U			ND 0.05	U		ND 0.05	U		ND 0.055	U	
Acenaphthene	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
2,4-Dinitrophenol	ND 2	UJR		ND 2	UJ		ND 2.2	U		ND 2	U			ND 0.05	U		ND 0.05	U		ND 0.055	U	
4-Nitrophenol	ND 2	UJR		ND 2	UJ		ND 2.2	U		ND 2	U			ND 0.05	U		ND 0.05	U		ND 0.055	U	
Dibenzofuran	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
2,4-Dinitrotoluene	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
Diethylphthalate	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
4-Chlorophenyl-phenylether	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
Fluorene	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	
4-Nitroaniline	ND 2	UJ		ND 2	UJ		ND 2.2	U		ND 2	U			ND 0.05	U		ND 0.05	U		ND 0.055	U	
4,6-Dinitro-2-Methylphenol	ND 2	UJR		ND 2	UJ		ND 2.2	U		ND 2	U			ND 0.05	U		ND 0.05	U		ND 0.055	U	
N-Nitrosodiphenylamine (1)	ND 0.4	UJ		ND 0.4	UJ		ND 0.44	U		ND 0.4	U			ND 0.01	U		ND 0.01	U		ND 0.011	U	

TABLE 7:
SOIL ANALYTICAL RESULTS
- QUALIFIED DATA (for 1993 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

BORING/ WELL I.D.	SB-9 DUP1		SB-9 RERUN		SB-10		SB-10		TB1	RB-1		RB-2		RB-3	
SAMPLING DATE	12/6/93		12/6/93		12/8/93		12/8/93		12/6/93	12/6/93		12/7/93		12/8/93	
SAMPLING DEPTH/INTERVAL	18-19'		18-19'		7.5-9'		17.5-18.5'		-	-		-		-	
4-Bromophenyl-phenylether	ND 0.4	UJ	ND 0.4	UJ	ND 0.44	U	ND 0.4	U		ND 0.01	U	ND 0.01	U	ND 0.011	U
Hexachlorobenzene	ND 0.4	UJ	ND 0.4	UJ	ND 0.44	U	ND 0.4	U		ND 0.01	U	ND 0.01	U	ND 0.011	U
Pentachlorophenol	ND 2	UJR	ND 2	UJ	ND 2.2	U	ND 2	U		ND 0.05	U	ND 0.05	U	ND 0.055	U
Phenanthrene	ND 0.4	UJ	0.056	0.4 J	ND 0.44	U	ND 0.4	U		ND 0.01	U	ND 0.01	U	ND 0.011	U
Anthracene	ND 0.4	UJ	ND 0.4	UJ	ND 0.44	U	ND 0.4	U		ND 0.01	U	ND 0.01	U	ND 0.011	U
Di-n-Butylphthalate	ND 0.4	UJ	0.32	0.4 J	ND 0.44	BU	ND 0.4	BU		ND 0.01	U	ND 0.01	U	ND 0.011	U
Fluoranthene	ND 0.4	UJ	ND 0.4	UJ	ND 0.44	U	ND 0.4	U		ND 0.01	U	ND 0.01	U	ND 0.011	U
Pyrene	ND 0.4	UJ	ND 0.4	UJ	ND 0.44	U	ND 0.4	U		ND 0.01	U	ND 0.01	U	ND 0.011	U
Butylbenzylphthalate	ND 0.4	UJ	ND 0.4	UJ	ND 0.44	U	ND 0.4	U		ND 0.01	U	ND 0.01	U	ND 0.011	U
3,3'-Dichlorobenzidine	ND 0.79	UJ	ND 0.79	UJ	ND 0.87	U	ND 0.79	U		ND 0.02	U	ND 0.02	U	ND 0.022	U
Benzo (a) Anthracene	ND 0.4	UJ	ND 0.4	UJ	ND 0.44	U	ND 0.4	U		ND 0.01	U	ND 0.01	U	ND 0.011	U
Chrysene	ND 0.4	UJ	ND 0.4	UJ	ND 0.44	U	ND 0.4	U		ND 0.01	U	ND 0.01	U	ND 0.011	U
bis (2-Ethylhexyl) Phthalate	ND 0.4	UJ	ND 0.4	UJ	ND 0.44	U	ND 0.4	U		0.001 0.01	J	ND 0.01	U	ND 0.011	U
Di-n-Octyl Phthalate	ND 0.4	UJ	ND 0.4	UJ	ND 0.44	U	ND 0.4	U		ND 0.01	U	ND 0.01	U	ND 0.011	U
Benzo (b) Fluoranthene	ND 0.4	UJ	ND 0.4	UJ	ND 0.44	U	ND 0.4	U		ND 0.01	U	ND 0.01	U	ND 0.011	U
Benzo (k)Fluoranthene	ND 0.4	UJ	ND 0.4	UJ	ND 0.44	U	ND 0.4	U		ND 0.01	U	ND 0.01	U	ND 0.011	U
Benzo (a) Pyrene	ND 0.4	UJ	ND 0.4	UJ	ND 0.44	U	ND 0.4	U		ND 0.01	U	ND 0.01	U	ND 0.011	U
Indeno (1,2,3-cd) Pyrene	ND 0.4	UJ	ND 0.4	UJ	ND 0.44	U	ND 0.4	U		ND 0.01	U	ND 0.01	U	ND 0.011	U
Dibenzo (a,h) Anthracene	ND 0.4	UJ	ND 0.4	UJ	ND 0.44	U	ND 0.4	U		ND 0.01	U	ND 0.01	U	ND 0.011	U
Benzo (g,h,i) Perylene	ND 0.4	UJ	ND 0.4	UJ	ND 0.44	U	ND 0.4	U		ND 0.01	U	ND 0.01	U	ND 0.011	U
Pyridine	ND 2	UJ	ND 2	UJ	ND 2.2	U	ND 2	U		ND 0.05	U	ND 0.05	U	ND 0.055	U
3-Picoline	ND 0.4	UJ	ND 0.4	UJ	4.4 0.87		ND 0.4	U		ND 0.01	U	ND 0.01	U	ND 0.011	U
1-Methyl-2-pyrrolidinone	ND 0.79	UJ	ND 0.79	UJ	ND 0.87	U	ND 0.79	U		ND 0.02	U	ND 0.02	U	ND 0.022	U
N,N-Dimethylacetamide															
Lab Name	Weston-Gulf Coast		Weston-Gulf Coast		Weston-Gulf Coast		Weston-Gulf Coast		Weston-Gulf Coast	Weston-Gulf Coast		Weston-Gulf Coast		Weston-Gulf Coast	
Analytical Method	E.P.A. Method		E.P.A. Method		E.P.A. Method		E.P.A. Method		E.P.A. Method	E.P.A. Method		E.P.A. Method		E.P.A. Method	
	8240		8240		8240		8240		8240	8240		8240		8240	
Source Document(s)	2		2		2		2		2	2		2		2	

1 Supplemental Investigation Report - Chicago Recycle Center - Safety-Kleen Corp. Append D, Dec. 1991
2 Loose Lab Sheet by Weston-Gulf Coast, Inc. Dec. 1993, Jan. 1994
U Compound was not detected at or above the reporting limit
J Result is an estimated value below the reporting limit or a tetatively identified compound (TIC)
B Compound was found in the blank and the sample
UR Analyte was not detected but the results are unreliable due to serious deficiencies in the analysis
ND Non-Detected
RL Reporting Limit
TB Trip Blank
RB Rinse Blank
J Red color indicates the corrected data qualifier

TABLE 8: GROUND WATER ANALYTICAL RESULTS
SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	P1		P2		P3		P4		MW-1		MW-1		MW-1 RERUN		MW-1		MW-2	
SAMPLING DATE	5/9/91		5/9/91		5/9/91		5/9/91		11/7/91		12/21/93		12/21/93		2/15/94		11/7/91	
SAMPLING DEPTH/INTERVAL (ft)									4-9		4-9		4-9		4-9		5-10	
VOLATILE ORGANICS (mg/L)	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag
Chloromethane	nd 10		nd 1L		nd 0.002		nd 0.02		nd 0.05		nd 0.1	U			nd 0.1	U	nd 0.2	
Bromomethane	nd 10		nd 1L		nd 0.002		nd 0.02		nd 0.05		nd 0.1	U			nd 0.1	U	nd 0.2	
Vinyl Chloride	nd 5		nd 0.5L		nd 0.001		nd 0.01		1.1 0.05		0.07 0.1	J			0.25 0.1		0.26 0.2	
Chloroethane	nd 10		nd 1L		0.004		0.02		1.9 1		1 0.1				0.95 0.1		nd 0.2	
Methylene Chloride	9.5		nd 0.5L		0.002		0.01		0.15 0.025		nd 0.05	U			nd 0.05	U	12 0.5	
Acetone									0.13 0.05		nd 0.1	U			nd 0.1	U	4.7 1	
Carbon Disulfide									nd 0.025		nd 0.05	U			nd 0.05	U	0.75 0.1	
1,1-Dichloroethene	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U			nd 0.05	U	0.26 0.1	
1,1-Dichloroethane	nd 5		nd 0.5L		0.023		0.1		0.1 0.025		nd 0.05	U			0.036 0.05	J	0.46 0.1	
1,2-Dichloroethene (total)	nd 5		nd 0.5L		0.005		0.02		1.1 0.025		0.16 0.05				0.1 0.05		3.9 0.1	
Chloroform	50		nd 0.5L		0.001		nd 0.01		nd 0.025		nd 0.05	U			nd 0.05	U	54 10	
1,2-Dichloroethane	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
2-Butanone									nd 0.05		nd 0.1	U			nd 0.1	U	0.7 0.2	
1,1,1-Trichloroethane	nd 10		nd 1L		nd 0.002		0.03		0.016 0.025	J	nd 0.05	U			nd 0.05	U	2.5 0.1	
Carbon Tetrachloride	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U			nd 0.05	U	0.98 0.1	
Vinyl Acetate									nd 0.05		nd 0.1	U			nd 0.1	U	nd 0.2	
Bromodichloromethane	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
1,2-Dichloropropane	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U			nd 0.05	U	0.079 0.1	J
cis-1,3-Dichloropropene	nd 10		nd 1L		nd 0.002		nd 0.02		nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
Trichloroethene	nd 10		nd 1L		0.003		0.03		0.057 0.025		0.28 0.05				nd 0.05	U	16 0.5	
Dibromochloromethane									nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
1,1,2-Trichloroethane	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
Benzene	nd 5		nd 0.5L		nd 0.001		nd 0.01		0.48 0.025		0.42 0.05				0.31 0.05		8.1 0.5	
Trans-1,3-Dichloropropene	nd 10		nd 1L		nd 0.002		nd 0.02		nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
Bromoform	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
4-Methyl-2-pentanone									0.039 0.05	J	nd 0.1	U			nd 0.1	U	nd 0.2	
2-Hexanone									nd 0.05		nd 0.1	U			nd 0.1	U	nd 0.2	
Tetrachloroethene	nd 10		nd 1L		nd 0.002		nd 0.02		nd 0.025		0.28 0.05				nd 0.05	U	0.44 0.1	
1,1,2,2-Tetrachloroethane	nd 10		nd 1L		nd 0.002		nd 0.02		nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
Toluene	470		nd 0.5L		nd 0.001		nd 0.01		0.53 0.025		0.38 0.05				0.15 0.05		300 10	
Chlorobenzene	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
Ethylbenzene	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		0.04 0.05	J			nd 0.05	U	0.3 0.1	
Styrene									nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
Total Xylenes	nd 15		nd 1.5L		nd 0.003		nd 0.03		nd 0.025		0.14 0.05				nd 0.05	U	2 0.1	
Tetrahydrofuran									2.1 0.5		9.2 0.5				9.5 2.5		nd 0.1	
Trichlorotrifluoroethane									nd 0.05		nd 0.1	U			nd 0.1	U	4.2 1	
Chlorodibromomethane	nd 5		nd 0.5L		nd 0.001		nd 0.01											
2-Chloroethylvinylether	nd 25		nd 2.5L		nd 0.005		nd 0.05											
Fluorotrichloromethane	nd 10		nd 1L		nd 0.002		nd 0.02											
Dichlorodifluoromethane	nd 10		nd 1L		nd 0.002		nd 0.02											

TABLE 8: GROUND WATER ANALYTICAL RESULTS
SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	P1	P2	P3	P4	MW-1	MW-1	MW-1 RERUN	MW-1	MW-2
SAMPLING DATE	5/9/91	5/9/91	5/9/91	5/9/91	11/7/91	12/21/93	12/21/93	2/15/94	11/7/91
SAMPLING DEPTH/INTERVAL (ft)					4-9	4-9	4-9	4-9	5-10
SEMI-VOLATILE ORGANICS (mg/L)									
Phenol					0.02 0.06 J	0.012 0.05 J	0.014 0.11 J	nd 0.1 U	nd 2
bis(2-Chloroethyl) ether					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
2-Chlorophenol					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
1,3-Dichlorobenzene	nd 5	nd 0.5L	nd 0.001	nd 0.01	nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
1,4-Dichlorobenzene	nd 5	nd 0.5L	nd 0.001	nd 0.01	nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Benzyl alcohol					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	0.45 2
1,2-Dichlorobenzene	nd 5	nd 0.5L	nd 0.001	nd 0.01	nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
2-Methylphenol					0.05 0.06 J	0.006 0.05 J	nd 0.11 U	nd 0.1 U	0.49 2 J
bis(2-Chloroisopropyl) ether					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
4-Methylphenol					0.01 0.06 J	nd 0.05 U	0.016 0.11 J	nd 0.1 U	nd 2
N-Nitroso-Di-n-propylamine					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Hexachloroethane					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Nitrobenzene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Isophorone					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
2-Nitrophenol					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
2,4-Dimethylphenol					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Benzoic acid					nd 0.3	nd 0.25 U	nd 0.55 U	nd 0.5 U	1.5 9.8 J
bis(2-Chloroethoxy)methane					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
2,4-Dichlorophenol					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
1,2,4-Trichlorobenzene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Naphthalene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
4-Chloroaniline					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Hexachlorobutadiene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
4-Chloro-3-Methylphenol					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
2-Methylnaphthalene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Hexachlorocyclopentadiene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
2,4,6-Trichlorophenol					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
2,4,5-Trichlorophenol					nd 0.3	nd 0.25 U	nd 0.55 U	nd 0.5 U	nd 9.8
2-Chloronaphthalene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
2-Nitroaniline					nd 0.3	nd 0.25 U	nd 0.55 U	nd 0.5 U	nd 9.8
Dimethyl Phthalate					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Acenaphthylene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
2,6-Dinitrotoluene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
3-Nitroaniline					nd 0.3	nd 0.25 U	nd 0.55 U	nd 0.5 U	nd 9.8
Acenaphthene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
2,4-Dinitrophenol					nd 0.3	nd 0.25 U	nd 0.55 U	nd 0.5 U	nd 9.8
4-Nitrophenol					nd 0.3	nd 0.25 U	nd 0.55 U	nd 0.5 U	nd 9.8
Dibenzofuran					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
2,4-Dinitrotoluene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Diethylphthalate					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
4-Chlorophenyl-phenylether					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
fluorene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
4-Nitroaniline					nd 0.3	nd 0.25 U	nd 0.55 U	nd 0.5 U	nd 9.8

TABLE 8: GROUND WATER ANALYTICAL RESULTS
SAFETY-KLEEN SITE, CHICAGO,IL

WELL I.D.	P1	P2	P3	P4	MW-1	MW-1	MW-1 RERUN	MW-1	MW-2
SAMPLING DATE	5/9/91	5/9/91	5/9/91	5/9/91	11/7/91	12/21/93	12/21/93	2/15/94	11/7/91
SAMPLING DEPTH/INTERVAL (ft)					4-9	4-9	4-9	4-9	5-10
4,6-Dinitro-2-Methylphenol					nd 0.3	nd 0.25 U	nd 0.55 U	nd 0.5 U	nd 9.8
N-Nitrosodiphenylamine (1)					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
4-Bromophenyl-phenylether					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Hexachlorobenzene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Pentachlorophenol					nd 0.3	nd 0.25 U	nd 0.55 U	nd 0.5 U	nd 9.8
Phenanthrene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Anthracene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Di-n-Butylphthalate					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Fluoranthene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Pyrene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Butylbenzylphthalate					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
3,3'-Dichlorobenzidine					nd 0.12	nd 0.1 U	nd 0.22 U	nd 0.2 U	nd 3.9
Benzo (a) Anthracene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Chrysene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
bis (2-Ethylhexyl) Phthalate					nd 0.06	nd 0.05 U	0.033 0.11 J	nd 0.1 U	nd 2
Di-n-Octyl Phthalate					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Benzo (b) Fluoranthene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Benzo (k)Fluoranthene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Benzo (a) Pyrene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Indeno (1,2,3-cd) Pyrene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Dibenzo (a,h) Anthracene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Benzo (g,h,i) Perylene					nd 0.06	nd 0.05 U	nd 0.11 U	nd 0.1 U	nd 2
Pyridine					0.05 0.06 J	nd 0.25 U	nd 0.55 U	nd 0.5 U	2.4 2
3-Picoline					2.7 0.3	5.4 0.5	3.6 0.11 E	2.3 0.2	290 39
1-Methyl-2-pyrrolidinone*					0.11	0.14 0.1 J	0.18 0.22 J	0.18 0.1	12
N,N-Dimethylacetamide					0.18 0.06			0.043 0.1 J	850 39
Lab Name	RMT	RMT	RMT	RMT	WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	WESTON
Analytical Method	8010& 8020	8010& 8020	8010& 8020	8010& 8020	EPA 8240 & 8270	EPA 8240 & 8270	EPA 8240 & 8270	EPA 8240 & 8270	EPA 8240 & 8270
Source Document(s)	1	1	1	1	1	2	2	1	1

1 Canonie, 12/1991, Appendix C
2 Loose Lab Sheet provided by Roy F. Weston - Gulf Coast Lab. January, 1994
* Canonie, 12/1991, Appendix C, Lab report page 1c

RL Reporting Limit
U Compound was not detected at or above the reporting limit
J Result is an estimated value below the reporting limit or a tetatively identified compound (TIC)
B Compound was found in the blank and the sample
E Concentration exceeds the instrument calibration range and was subsequently diluted
Flag data qualifier

TABLE 8: GROUND WATER ANALYTICAL RESULTS

SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-2	MW-2 RERUN	MW-2	MW-2 DUP	MW-3	MW-3 Dup?	MW-3	MW-3 RERUN	MW-3
SAMPLING DATE	12/21/93	12/21/93	2/15/94	2/15/94	11/7/91	11/7/91	12/21/93	12/21/93	2/16/94
SAMPLING DEPTH/INTERVAL (ft)	5-10	5-10	5-10	5-10	5-10	?	5-10	5-10	5-10
SEMI-VOLATILE ORGANICS (mg/L)									
Phenol	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	0.022 0.076 J	0.024 0.088 J	nd 0.1 U	nd 0.1 U	nd 0.2 U
bis(2-Chloroethyl) ether	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
2-Chlorophenol	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
1,3-Dichlorobenzene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
1,4-Dichlorobenzene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Benzyl alcohol	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
1,2-Dichlorobenzene	0.15 1 J	0.14 1 J	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
2-Methylphenol	0.22 1 J	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	0.089 0.2 J
bis(2-Chloroisopropyl) ether	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
4-Methylphenol	0.5 1 J	0.52 1 J	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	0.016 0.1 J	nd 0.1 U	0.59 0.2
N-Nitroso-Di-n-propylamine	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Hexachloroethane	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Nitrobenzene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Isophorone	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
2-Nitrophenol	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
2,4-Dimethylphenol	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	0.039 0.076 J	0.037 0.088 J	0.02 0.1 J	0.019 0.1 J	nd 0.2 U
Benzoic acid	1.5 5 J	2.1 5 J	nd 16 U	nd 10 U	nd 0.38	nd 0.44	nd 0.5 U	nd 0.5 U	nd 1 U
bis(2-Chloroethoxy)methane	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
2,4-Dichlorophenol	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
1,2,4-Trichlorobenzene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Naphthalene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	0.05 0.076 J	0.055 0.088 J	0.03 0.1 J	0.032 0.1 J	nd 0.2 U
4-Chloroaniline	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Hexachlorobutadiene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
4-Chloro-3-Methylphenol	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
2-Methylnaphthalene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	0.007 0.076 J	0.008 0.088 J	nd 0.1 U	nd 0.1 U	nd 0.2 U
Hexachlorocyclopentadiene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
2,4,6-Trichlorophenol	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
2,4,5-Trichlorophenol	nd 5 U	nd 5 U	nd 16 U	nd 10 U	nd 0.38	nd 0.44	nd 0.5 U	nd 0.5 U	nd 1 U
2-Chloronaphthalene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
2-Nitroaniline	nd 5 U	nd 5 U	nd 16 U	nd 10 U	nd 0.38	nd 0.44	nd 0.5 U	nd 0.5 U	nd 1 U
Dimethyl Phthalate	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Acenaphthylene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
2,6-Dinitrotoluene	nd 1 U	0.21 1 J	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
3-Nitroaniline	nd 5 U	nd 5 U	nd 16 U	nd 10 U	nd 0.38	nd 0.44	nd 0.5 U	nd 0.5 U	nd 1 U
Acenaphthene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	0.018 0.076 J	0.02 0.088 J	0.01 0.1 J	0.01 0.1 J	nd 0.2 U
2,4-Dinitrophenol	nd 5 U	nd 5 U	nd 16 U	nd 10 U	nd 0.38	nd 0.44	nd 0.5 U	nd 0.5 U	nd 1 U
4-Nitrophenol	nd 5 U	nd 5 U	nd 16 U	nd 10 U	nd 0.38	nd 0.44	nd 0.5 U	nd 0.5 U	nd 1 U
Dibenzofuran	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	0.009 0.076 J	0.01 0.088 J	nd 0.1 U	nd 0.1 U	nd 0.2 U
2,4-Dinitrotoluene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Diethylphthalate	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
1-Chlorophenyl-phenylether	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
fluorene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	0.012 0.076 J	0.056 0.088 J	nd 0.1 U	nd 0.1 U	nd 0.2 U
4-Nitroaniline	nd 5 U	nd 5 U	nd 16 U	nd 10 U	nd 0.38	nd 0.44	nd 0.5 U	nd 0.5 U	nd 1 U

TABLE 8: GROUND WATER ANALYTICAL RESULTS
SAFETY-KLEEN SITE, CHICAGO,IL

WELL I.D.	MW-2	MW-2 RERUN	MW-2	MW-2 DUP	MW-3	MW-3 Dup?	MW-3	MW-3 RERUN	MW-3
SAMPLING DATE	12/21/93	12/21/93	2/15/94	2/15/94	11/7/91	11/7/91	12/21/93	12/21/93	2/16/94
SAMPLING DEPTH/INTERVAL (ft)	5-10	5-10	5-10	5-10	5-10	?	5-10	5-10	5-10
4,6-Dinitro-2-Methylphenol	nd 5 U	nd 5 U	nd 16 U	nd 10 U	nd 0.38	nd 0.44	nd 0.5 U	nd 0.5 U	nd 1 U
N-Nitrosodiphenylamine (1)	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
4-Bromophenyl-phenylether	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Hexachlorobenzene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Pentachlorophenol	nd 5 U	nd 5 U	nd 16 U	nd 10 U	nd 0.38	nd 0.44	nd 0.5 U	nd 0.5 U	nd 1 U
Phenanthrene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	0.011 0.076 J	0.013 0.088 J	nd 0.1 U	nd 0.1 U	nd 0.2 U
Anthracene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Di-n-Butylphthalate	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Fluoranthene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Pyrene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Butylbenzylphthalate	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
3,3'-Dichlorobenzidine	nd 2 U	nd 2 U	nd 6.4 U	nd 4 U	nd 0.15	nd 0.18	nd 0.2 U	nd 0.2 U	nd 0.4 U
Benzo (a) Anthracene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Chrysene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
bis (2-Ethylhexyl) Phthalate	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Di-n-Octyl Phthalate	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Benzo (b) Fluoranthene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Benzo (k)Fluoranthene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Benzo (a) Pyrene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Indeno (1,2,3-cd) Pyrene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Dibenzo (a,h) Anthracene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Benzo (g,h,i) Perylene	nd 1 U	nd 1 U	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 U	nd 0.2 U
Pyridine	nd 5 U	nd 5 U	6.5 3.2	2.5 2	0.064 0.076 J	0.071 0.088 J	nd 0.5 U	nd 0.5 U	1.3 1
3-Picoline	670 50	230 1 E	190 160	160 160	4.6 0.38	4.9 0.44	9.9 1	4.6 0.1 E	530 100
1-Methyl-2-pyrrolidinone*	1100 100	160 2 E	74 160 J	61 160 J	0.16	0.2	1.3 0.2	1.4 0.2	140 10
N,N-Dimethylacetamide			1800 160	1500 160	22 1.5	2.7 1.8			21000 2000
Lab Name	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	WESTON	WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON
Analytical Method	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA
	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270
Source Document(s)	2	2	1	1	1	1	2	2	1

1 Canonie, 12/1991, Appendix C
2 Loose Lab Sheet provided by Roy F. Weston - Gulf Coast Lab. January, 1994
* Canonie, 12/1991, Appendix C, Lab report page 1c

RL Reporting Limit
U Compound was not detected at or above the reporting limit
J Result is an estimated value below the reporting limit or a tetatively identified compound (TIC)
B Compound was found in the blank and the sample
E Concentration exceeds the instrument calibration range and was subsequently diluted
Flag data qualifier

TABLE 8: GROUND WATER ANALYTICAL RESULTS

SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-4		MW-4 RERUN		MW-4		MW-5		MW-5 RERUN		MW-5		MW-6		MW-6 RERUN		MW-7		MW-7 RERUN					
SAMPLING DATE	12/21/93		12/21/93		2/15/94		12/20/93		12/20/93		2/15/94		12/21/93		12/21/93		12/21/93		12/21/93					
SAMPLING DEPTH/INTERVAL (ft)	5-10		5-10		5-10		5-10		5-10		5-10		5-10		5-10		5-10		5-10					
VOLATILE ORGANICS (mg/L)	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag				
Chloromethane	0.12	0.1			0.11	0.05	nd	0.01	U		nd	0.01	U		nd	0.1	U		nd	1	U			
Bromomethane	nd	0.1	U		nd	0.05	U		nd	0.01	U		nd	0.01	U		nd	0.1	U		nd	1	U	
Vinyl Chloride	0.1	0.1			0.085	0.05	nd	0.01	U		nd	0.01	U		nd	0.1	U		1.9	1				
Chloroethane	nd	0.1	U		0.038	0.05	J		nd	0.01	U		nd	0.01	U		nd	0.1	U		6.1	1		
Methylene Chloride	1.8	0.05			1.5	0.25	nd	0.005	U		nd	0.005	U		nd	0.05	U		0.51	0.5				
Acetone	2.8	1	B		nd	0.05	U		nd	0.01	U		nd	0.01	U		nd	0.1	U		5.6	5	B	
Carbon Disulfide	nd	0.05	U		nd	0.025	U		nd	0.005	U		nd	0.005	U		nd	0.05	U		nd	0.5	U	
1,1-Dichloroethene	nd	0.05	U		nd	0.025	U		nd	0.005	U		nd	0.005	U		nd	0.05	U		nd	0.5	U	
1,1-Dichloroethane	nd	0.05	U		0.018	0.025	J	0.016	0.005		0.004	0.005	J		nd	0.05	U		4.6	0.5				
1,2-Dichloroethene (total)	0.068	0.05			0.17	0.025	nd	0.005	U		nd	0.005	U		nd	0.05	U		3	0.5				
Chloroform	1.2	0.05			0.4	0.025	nd	0.005	U		nd	0.005	U		nd	0.05	U		nd	0.5	U			
1,2-Dichloroethane	nd	0.05	U		nd	0.025	U		nd	0.005	U		nd	0.005	U		nd	0.05	U		nd	0.5	U	
2-Butanone	0.21	0.1			0.17	0.05	nd	0.01	U		nd	0.01	U		nd	0.1	U		1.7	1				
1,1,1-Trichloroethane	nd	0.05	U		nd	0.025	U		nd	0.005	U		nd	0.005	U		nd	0.05	U		nd	0.5	U	
Carbon Tetrachloride	nd	0.05	U		nd	0.025	U		nd	0.005	U		nd	0.005	U		nd	0.05	U		nd	0.5	U	
Vinyl Acetate	nd	0.1	U		nd	0.05	U		nd	0.01	U		nd	0.01	U		nd	0.1	U		nd	1	U	
Bromodichloromethane	nd	0.05	U		nd	0.025	U		nd	0.005	U		nd	0.005	U		nd	0.05	U		nd	0.5	U	
1,2-Dichloropropane	nd	0.05	U		0.012	0.025	J		nd	0.005	U		nd	0.005	U		nd	0.05	U		nd	0.5	U	
cis-1,3-Dichloropropene	nd	0.05	U		nd	0.025	U		nd	0.005	U		nd	0.005	U		nd	0.05	U		nd	0.5	U	
Trichloroethene	0.026	0.05	J		nd	0.025	U		nd	0.005	U		nd	0.005	U		nd	0.05	U		nd	0.5	U	
Dibromochloromethane	nd	0.05	U		nd	0.025	U		nd	0.005	U		nd	0.005	U		nd	0.05	U		nd	0.5	U	
1,1,2-Trichloroethane	nd	0.05	U		nd	0.025	U		nd	0.005	U		nd	0.005	U		nd	0.05	U		nd	0.5	U	
Benzene	5.5	0.5			3.2	0.25	0.003	0.005	J		0.003	0.005	J		nd	0.05	U		4.2	0.5				
Trans-1,3-Dichloropropene	nd	0.05	U		nd	0.025	U		nd	0.005	U		nd	0.005	U		nd	0.05	U		nd	0.5	U	
Bromoform	nd	0.05	U		nd	0.025	U		nd	0.005	U		nd	0.005	U		nd	0.05	U		nd	0.5	U	
4-Methyl-2-pentanone	0.83	0.1			0.7	0.5	nd	0.01	U		nd	0.01	U		nd	0.1	U		6.7	1				
2-Hexanone	nd	0.1	U		nd	0.05	U		nd	0.01	U		nd	0.01	U		nd	0.1	U		nd	1	U	
Tetrachloroethene	nd	0.05	U		nd	0.025	U		nd	0.005	U		nd	0.005	U		nd	0.05	U		nd	0.5	U	
1,1,2,2-Tetrachloroethane	nd	0.05	U		nd	0.025	U		nd	0.005	U		nd	0.005	U		nd	0.05	U		nd	0.5	U	
Toluene	0.8	0.05			0.71	0.025	nd	0.005	U		nd	0.005	U		nd	0.05	U		13	2.5				
Chlorobenzene	nd	0.05	U		nd	0.025	U		nd	0.005	U		nd	0.005	U		nd	0.05	U		nd	0.5	U	
Ethylbenzene	0.11	0.05			0.077	0.025	nd	0.005	U		nd	0.005	U		nd	0.05	U		3.7	0.5				
Styrene	nd	0.05	U		nd	0.025	U		nd	0.005	U		nd	0.005	U		nd	0.05	U		nd	0.5	U	
Total Xylenes	0.073	0.05			0.047	0.025	nd	0.005	U		nd	0.005	U		nd	0.05	U		2.9	0.5				
Tetrahydrofuran	20	0.5			23	0.25	0.015	0.005			0.096	0.005			6	0.25			22	2.5				
Trichlorotrifluoroethane	nd	0.1	U		nd	0.05	U		nd	0.01	U		nd	0.01	U		nd	0.1	U		nd	1	U	
Chlorodibromomethane																								
2-Chloroethylvinylether																								
Flouorotrichloromethane																								
Dichlorodifluoromethane																								

TABLE 8: GROUND WATER ANALYTICAL RESULTS

SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-4	MW-4 RERUN	MW-4	MW-5	MW-5 RERUN	MW-5	MW-6	MW-6 RERUN	MW-7	MW-7 RERUN
SAMPLING DATE	12/21/93	12/21/93	2/15/94	12/20/93	12/20/93	2/15/94	12/21/93	12/21/93	12/21/93	12/21/93
SAMPLING DEPTH/INTERVAL (ft)	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10
SEMI-VOLATILE ORGANICS (mg/L)										
Phenol	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
bis(2-Chloroethyl) ether	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
2-Chlorophenol	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
1,3-Dichlorobenzene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
1,4-Dichlorobenzene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Benzyl alcohol	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
1,2-Dichlorobenzene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
2-Methylphenol	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
bis(2-Chloroisopropyl) ether	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
4-Methylphenol	0.36 1.2 J	0.33 1 J	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	0.064 0.05	0.059 0.05
N-Nitroso-Di-n-propylamine	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Hexachloroethane	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Nitrobenzene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Isophorone	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
2-Nitrophenol	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
2,4-Dimethylphenol	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	0.045 0.05 J	0.053 0.05
Benzoic acid	nd 6.2 U	nd 5 U	nd 25 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.1 U	nd 0.1 U	nd 0.25 U	nd 0.25 U
bis(2-Chloroethoxy)methane	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
2,4-Dichlorophenol	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
1,2,4-Trichlorobenzene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Naphthalene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	0.006 0.05 J
4-Chloroaniline	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Hexachlorobutadiene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
4-Chloro-3-Methylphenol	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
2-Methylnaphthalene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Hexachlorocyclopentadiene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
2,4,6-Trichlorophenol	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
2,4,5-Trichlorophenol	nd 6.2 U	nd 5 U	nd 25 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.1 U	nd 0.1 U	nd 0.25 U	nd 0.25 U
2-Chloronaphthalene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
2-Nitroaniline	nd 6.2 U	nd 5 U	nd 25 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.1 U	nd 0.1 U	nd 0.25 U	nd 0.25 U
Dimethyl Phthalate	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Acenaphthylene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
2,6-Dinitrotoluene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
3-Nitroaniline	nd 6.2 U	nd 5 U	nd 25 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.1 U	nd 0.1 U	nd 0.25 U	nd 0.25 U
Acenaphthene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
2,4-Dinitrophenol	nd 6.2 U	nd 5 U	nd 25 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.1 U	nd 0.1 U	nd 0.25 U	nd 0.25 U
4-Nitrophenol	nd 6.2 U	nd 5 U	nd 25 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.1 U	nd 0.1 U	nd 0.25 U	nd 0.25 U
Dibenzofuran	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
2,4-Dinitrotoluene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Diethylphthalate	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
1-Chlorophenyl-phenylether	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Fluorene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
4-Nitroaniline	nd 6.2 U	nd 5 U	nd 25 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.1 U	nd 0.1 U	nd 0.25 U	nd 0.25 U

TABLE 8: GROUND WATER ANALYTICAL RESULTS
SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-4	MW-4 RERUN	MW-4	MW-5	MW-5 RERUN	MW-5	MW-6	MW-6 RERUN	MW-7	MW-7 RERUN
SAMPLING DATE	12/21/93	12/21/93	2/15/94	12/20/93	12/20/93	2/15/94	12/21/93	12/21/93	12/21/93	12/21/93
SAMPLING DEPTH/INTERVAL (ft)	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10
4,6-Dinitro-2-Methylphenol	nd 6.2 U	nd 5 U	nd 25 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.1 U	nd 0.1 U	nd 0.25 U	nd 0.25 U
N-Nitrosodiphenylamine (1)	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
4-Bromophenyl-phenylether	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Hexachlorobenzene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Pentachlorophenol	nd 6.2 U	nd 5 U	nd 25 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.1 U	nd 0.1 U	nd 0.25 U	nd 0.25 U
Phenanthrene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Anthracene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Di-n-Butylphthalate	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Fluoranthene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Pyrene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Butylbenzylphthalate	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
3,3'-Dichlorobenzidine	nd 2.5 U	nd 2 U	nd 10 U	nd 0.02 U	nd 0.02 U	nd 0.02 U	nd 0.04 U	nd 0.04 U	nd 0.1 U	nd 0.1 U
Benzo (a) Anthracene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Chrysene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
bis (2-Ethylhexyl) Phthalate	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Di-n-Octyl Phthalate	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Benzo (b) Fluoranthene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Benzo (k)Fluoranthene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Benzo (a) Pyrene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Indeno (1,2,3-cd) Pyrene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Dibenzo (a,h) Anthracene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Benzo (g,h,i) Perylene	nd 1.2 U	nd 1 U	nd 5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.02 U	nd 0.02 U	nd 0.05 U	nd 0.05 U
Pyridine	nd 6.2 U	nd 5 U	nd 25 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.1 U	nd 0.1 U	3.4 25	1.3 0.25 E
3-Picoline	59 6.2	32 1 E	42 5	nd 0.01 U	nd 0.01 U	nd 0.01 U	0.66 0.05	0.28 0.02	26 5	9.2 0.05 E
1-Methyl-2-pyrrolidinone*	13 2.5	10 2	7.1 5	nd 0.02 U	nd 0.02 U	nd 0.01 U	nd 0.04 U	nd 0.04 U	23 10	8.8 0.1 E
N,N-Dimethylacetamide			2900 1000			nd 0.01 U				
Lab Name	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON
Analytical Method	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA
	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270
Source Document(s)	2	2	1	2	2	1	2	2	2	2

1 Canonie, 12/1991, Appendix C
 2 Loose Lab Sheet provided by Roy F. Weston - Gulf Coast Lab. January, 1994
 * Canonie, 12/1991, Appendix C, Lab report page 1c

RL Reporting Limit
 U Compound was not detected at or above the reporting limit
 J Result is an estimated value below the reporting limit or a tetatively identified compound (TIC)
 B Compound was found in the blank and the sample
 E Concentration exceeds the instrument calibration range and was subsequently diluted
 Flag data qualifier

TABLE 8: GROUND WATER ANALYTICAL RESULTS

SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-7			MW-8			MW-8 RERUN			MW-8			MW-9			MW-9 RERUN			MW-9			MW-10			MW-10 RERUN			MW-10 DUP		
SAMPLING DATE	2/15/94			12/21/93			12/21/93			2/14/94			12/21/93			12/21/93			2/15/94			12/21/93			12/21/93			12/21/93		
SAMPLING DEPTH/INTERVAL (ft)	5-10			5-10			5-10			5-10			5-10			5-10			5-10			5-10			5-10			5-10		
VOLATILE ORGANICS (mg/L)	RL	Flag		RL	Flag		RL	Flag		RL	Flag		RL	Flag		RL	Flag		RL	Flag		RL	Flag		RL	Flag		RL	Flag	
Chloromethane	nd	0.5	U	nd	1	U				nd	0.5	U	nd	0.1	U	nd	0.01	U	nd	0.01	U	nd	1	U				nd	1	U
Bromomethane	nd	0.5	U	nd	1	U				nd	0.5	U	nd	0.1	U	nd	0.01	U	nd	0.01	U	nd	1	U				nd	1	U
Vinyl Chloride	0.24	0.5	J	0.67	1	J				0.67	0.5		nd	0.1	U	0.032	0.01		0.027	0.01		nd	1	U				nd	1	U
Chloroethane	0.32	0.5	J	nd	1	U				nd	0.5	U	nd	0.1	U	0.006	0.01	J	nd	0.01	U	1.5	1				1.6	1		
Methylene Chloride	nd	0.25	U	0.63	0.5					0.62	0.25		nd	0.05	U	nd	0.005	U	nd	0.005	U	nd	0.5	U				nd	0.5	U
Acetone	2.1	0.5		11	1	B				12	5		0.11	0.1	B	0.01	0.01	B	nd	0.01	U	nd	1	U				0.68	1	JB
Carbon Disulfide	nd	0.25	U	nd	0.5	U				nd	0.25	U	nd	0.05	U	nd	0.005	U	nd	0.005	U	nd	0.5	U				nd	0.5	U
1,1-Dichloroethene	nd	0.25	U	0.72	0.5					nd	0.25	U	nd	0.05	U	nd	0.005	U	nd	0.005	U	nd	0.5	U				nd	0.5	U
1,1-Dichloroethane	0.32	0.25		1.1	0.5					1.2	0.25		0.078	0.05		0.027	0.005		0.045	0.005		0.33	0.5	J				0.28	0.5	J
1,2-Dichloroethene (total)	0.63	0.25		2	0.5					3.2	0.25		0.047	0.05		0.05	0.005		0.051	0.005		nd	0.5	U				nd	0.5	U
Chloroform	nd	0.25	U	2.7	0.5					nd	0.25	U	0.049	0.05	J	0.048	0.005		0.048	0.005		nd	0.5	U				nd	0.5	U
1,2-Dichloroethane	nd	0.25	U	10	0.5					nd	0.25	U	nd	0.05	U	nd	0.005	U	nd	0.005	U	0.65	0.5				nd	0.5	U	
2-Butanone	nd	0.5	U	2.2	1					nd	0.5	U	nd	0.1	U	nd	0.01	U	nd	0.01	U	nd	1	U				nd	1	U
1,1,1-Trichloroethane	nd	0.25	U	3.1	0.5					4.2	0.25		nd	0.05	U	0.008	0.005		0.015	0.005		0.25	0.5	J				nd	0.5	U
Carbon Tetrachloride	nd	0.25	U	0.82	0.5					nd	0.25	U	nd	0.05	U	nd	0.005	U	nd	0.005	U	nd	0.5	U				nd	0.5	U
Vinyl Acetate	nd	0.5	U	nd	1	U				nd	0.5	U	nd	0.1	U	nd	0.01	U	nd	0.01	U	nd	1	U				nd	1	U
Bromodichloromethane	nd	0.25	U	nd	0.5	U				nd	0.25	U	nd	0.05	U	nd	0.005	U	nd	0.005	U	nd	0.5	U				nd	0.5	U
1,2-Dichloropropane	nd	0.25	U	nd	0.5	U				nd	0.25	U	nd	0.05	U	nd	0.005	U	nd	0.005	U	nd	0.5	U				nd	0.5	U
cis-1,3-Dichloropropene	nd	0.25	U	nd	0.5	U				nd	0.25	U	nd	0.05	U	nd	0.005	U	nd	0.005	U	nd	0.5	U				nd	0.5	U
Trichloroethene	nd	0.25	U	3.8	0.5					0.82	0.25		0.017	0.05	J	0.015	0.005		0.007	0.005		nd	0.5	U				nd	0.5	U
Dibromochloromethane	nd	0.25	U	nd	0.5	U				nd	0.25	U	nd	0.05	U	nd	0.005	U	nd	0.005	U	nd	0.5	U				nd	0.5	U
1,1,2-Trichloroethane	nd	0.25	U	nd	0.5	U				nd	0.25	U	nd	0.05	U	nd	0.005	U	nd	0.005	U	nd	0.5	U				nd	0.5	U
Benzene	0.33	0.25		2.3	0.5					0.22	0.25	J	0.016	0.05	J	0.01	0.005		0.008	0.005		2.3	0.5				2.3	0.5		
Trans-1,3-Dichloropropene	nd	0.25	U	nd	0.5	U				nd	0.25	U	nd	0.05	U	nd	0.005	U	nd	0.005	U	nd	0.5	U				nd	0.5	U
Bromoform	nd	0.25	U	nd	0.5	U				nd	0.25	U	nd	0.05	U	nd	0.005	U	nd	0.005	U	nd	0.5	U				nd	0.5	U
4-Methyl-2-pentanone	1	0.5		nd	1	U				0.38	0.5	J	nd	0.1	U	nd	0.01	U	nd	0.01	U	nd	1	U				nd	1	U
2-Hexanone	nd	0.5	U	nd	1	U				nd	0.5	U	nd	0.1	U	nd	0.01	U	nd	0.01	U	nd	1	U				nd	1	U
Tetrachloroethene	nd	0.25	U	5	0.5					1.3	0.25		nd	0.05	U	nd	0.005	U	nd	0.005	U	nd	0.5	U				nd	0.5	U
1,1,2,2-Tetrachloroethane	nd	0.25	U	nd	0.5	U				nd	0.25	U	nd	0.05	U	nd	0.005	U	nd	0.005	U	nd	0.5	U				nd	0.5	U
Toluene	1.6	0.25		18	0.5					18	2.5		nd	0.05	U	nd	0.005	U	nd	0.005	U	6.6	0.5				6.6	0.5		
Chlorobenzene	nd	0.25	U	3	0.5					nd	0.25	U	nd	0.05	U	nd	0.005	U	nd	0.005	U	nd	0.5	U				nd	0.5	U
Ethylbenzene	0.41	0.25		nd	0.5	U				nd	0.25	U	nd	0.05	U	nd	0.005	U	nd	0.005	U	1.1	0.5				1	0.5		
Styrene	nd	0.25	U	nd	0.5	U				nd	0.25	U	nd	0.05	U	nd	0.005	U	nd	0.005	U	nd	0.5	U				nd	0.5	U
Total Xylenes	0.19	0.25	J	nd	0.5	U				0.22	0.25	J	nd	0.05	U	nd	0.005	U	nd	0.005	U	nd	0.5	U				nd	0.5	U
Tetrahydrofuran	22	2.5		26	1					23	2.5		0.51	0.05		0.089	0.005		0.52	0.025		32	1				34	1		
Trichlorotrifluoroethane	3.1	5	J	nd	1	U				9.1	0.5		nd	0.1	U	nd	0.01	U	nd	0.01	U	nd	1	U				nd	1	U
Chlorodibromomethane																														
2-Chloroethylvinylether																														
Flouorotrichloromethane																														
Dichlorodifluoromethane																														

TABLE 8: GROUND WATER ANALYTICAL RESULTS

SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-7	MW-8	MW-8 RERUN	MW-8	MW-9	MW-9 RERUN	MW-9	MW-10	MW-10 RERUN	MW-10 DUP
SAMPLING DATE	2/15/94	12/21/93	12/21/93	2/14/94	12/21/93	12/21/93	2/15/94	12/21/93	12/21/93	12/21/93
SAMPLING DEPTH/INTERVAL (ft)	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10
SEMI-VOLATILE ORGANICS (mg/L)										
Phenol	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	0.062 0.05	nd 0.05 U	nd 0.1 U
bis(2-Chloroethyl) ether	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
2-Chlorophenol	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
1,3-Dichlorobenzene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
1,4-Dichlorobenzene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Benzyl alcohol	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
1,2-Dichlorobenzene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
2-Methylphenol	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	0.024 0.05 J	0.025 0.05 J	0.022 0.1 J
bis(2-Chloroisopropyl) ether	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
4-Methylphenol	0.21 0.4 J	nd 0.1 U	0.15 0.2 J	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	0.04 0.05 J	0.045 0.05 J	0.041 0.1 J
N-Nitroso-Di-n-propylamine	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Hexachloroethane	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Nitrobenzene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Isophorone	nd 0.4 U	0.1 0.1 J	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
2-Nitrophenol	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
2,4-Dimethylphenol	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	0.046 0.05 J	0.046 0.05 J	0.04 0.1 J
Benzoic acid	1.1 2 J	nd 0.5 U	nd 1 U	nd 2.5 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.25 U	nd 0.25 U	nd 0.5 U
bis(2-Chloroethoxy)methane	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
2,4-Dichlorophenol	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
1,2,4-Trichlorobenzene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Naphthalene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
4-Chloroaniline	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Hexachlorobutadiene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
4-Chloro-3-Methylphenol	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
2-Methylnaphthalene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Hexachlorocyclopentadiene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
2,4,6-Trichlorophenol	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
2,4,5-Trichlorophenol	nd 2 U	nd 0.5 U	nd 1 U	nd 2.5 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.25 U	nd 0.25 U	nd 0.5 U
2-Chloronaphthalene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
2-Nitroaniline	nd 2 U	nd 0.5 U	nd 1 U	nd 2.5 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.25 U	nd 0.25 U	nd 0.5 U
Dimethyl Phthalate	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Acenaphthylene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
2,6-Dinitrotoluene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
3-Nitroaniline	nd 2 U	nd 0.5 U	nd 1 U	nd 2.5 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.25 U	nd 0.25 U	nd 0.5 U
Acenaphthene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
2,4-Dinitrophenol	nd 2 U	nd 0.5 U	nd 1 U	nd 2.5 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.25 U	nd 0.25 U	nd 0.5 U
4-Nitrophenol	nd 2 U	nd 0.5 U	nd 1 U	nd 2.5 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.25 U	nd 0.25 U	nd 0.5 U
Dibenzofuran	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
2,4-Dinitrotoluene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Diethylphthalate	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
1-Chlorophenyl-phenylether	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
fluorene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
4-Nitroaniline	nd 2 U	nd 0.5 U	nd 1 U	nd 2.5 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.25 U	nd 0.25 U	nd 0.5 U

TABLE 8: GROUND WATER ANALYTICAL RESULTS
SAFETY-KLEEN SITE, CHICAGO,IL

WELL I.D.	MW-7	MW-8	MW-8 RERUN	MW-8	MW-9	MW-9 RERUN	MW-9	MW-10	MW-10 RERUN	MW-10 DUP
SAMPLING DATE	2/15/94	12/21/93	12/21/93	2/14/94	12/21/93	12/21/93	2/15/94	12/21/93	12/21/93	12/21/93
SAMPLING DEPTH/INTERVAL (ft)	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10
4,6-Dinitro-2-Methylphenol	nd 2 U	nd 0.5 U	nd 1 U	nd 2.5 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.25 U	nd 0.25 U	nd 0.5 U
N-Nitrosodiphenylamine (1)	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
4-Bromophenyl-phenylether	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Hexachlorobenzene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Pentachlorophenol	nd 2 U	nd 0.5 U	nd 1 U	nd 2.5 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.25 U	nd 0.25 U	nd 0.5 U
Phenanthrene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Anthracene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Di-n-Butylphthalate	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Fluoranthene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Pyrene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Butylbenzylphthalate	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
3,3'-Dichlorobenzidine	nd 0.8 U	nd 0.2 U	nd 0.4 U	nd 1 U	nd 0.02 U	nd 0.02 U	nd 0.02 U	nd 0.1 U	nd 0.1 U	nd 0.2 U
Benzo (a) Anthracene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Chrysene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
bis (2-Ethylhexyl) Phthalate	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	0.001 0.01 J	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Di-n-Octyl Phthalate	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Benzo (b) Fluoranthene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Benzo (k)Fluoranthene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Benzo (a) Pyrene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Indeno (1,2,3-cd) Pyrene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Dibenzo (a,h) Anthracene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Benzo (g,h,i) Perylene	nd 0.4 U	nd 0.1 U	nd 0.2 U	nd 0.5 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	nd 0.05 U	nd 0.05 U	nd 0.1 U
Pyridine	2.5 2	33 25	19 1 E	21 2.5	nd 0.05 U	nd 0.05 U	nd 0.05 U	nd 0.25 U	nd 0.25 U	nd 0.5 U
3-Picoline	13 2	360 100	62 0.2 E	92 25	0.14 0.01	0.073 0.01	0.15 0.01	67 10	10 0.05 E	52 10
1-Methyl-2-pyrrolidinone*	19 2	1100 200	200 0.4 E	200 25	0.005 0.02 J	0.005 0.02 J	0.007 0.01 J	0.4 0.1	0.52 0.1	0.42 0.2
N,N-Dimethylacetamide	11 2			53 25			nd 0.01 U			
Lab Name	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON
Analytical Method	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA
	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270
Source Document(s)	1	2	2	1	2	2	1	2	2	2

1 Canonie, 12/1991, Appendix C
2 Loose Lab Sheet provided by Roy F. Weston - Gulf Coast Lab. January, 1994
* Canonie, 12/1991, Appendix C, Lab report page 1c

RL Reporting Limit
U Compound was not detected at or above the reporting limit
J Result is an estimated value below the reporting limit or a tetatively identified compound (TIC)
B Compound was found in the blank and the sample
E Concentration exceeds the instrument calibration range and was subsequently diluted
Flag data qualifier

TABLE 8: GROUND WATER ANALYTICAL RESULTS
SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-10 DUP RERUN		MW-10		RINSE BLANK		RINSE BLANK		RINSE BLANK		TRIP BLANK	
SAMPLING DATE	12/21/93		2/14/94		12/21/93		RERUN		2/16/94		12/21/93	
SAMPLING DEPTH/INTERVAL (ft)	5-10		5-10		-		-		-		-	
VOLATILE ORGANICS (mg/L)	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag
Chloromethane			nd 0.1	U	nd 0.01	U			nd 0.01	U	nd 0.01	U
Bromomethane			nd 0.1	U	nd 0.01	U			nd 0.01	U	nd 0.01	U
Vinyl Chloride			0.064 0.1	J	nd 0.01	U			nd 0.01	U	nd 0.01	U
Chloroethane			1.1 0.1		nd 0.01	U			nd 0.01	U	nd 0.01	U
Methylene Chloride			0.057 0.05		nd 0.005	U			nd 0.005	U	nd 0.005	U
Acetone			0.32 0.1		nd 0.01	U			nd 0.01	U	nd 0.01	U
Carbon Disulfide			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
1,1-Dichloroethene			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
1,1-Dichloroethane			0.16 0.05		nd 0.005	U			nd 0.005	U	nd 0.005	U
1,2-Dichloroethene (total)			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
Chloroform			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
1,2-Dichloroethane			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
2-Butanone			nd 0.1	U	nd 0.01	U			nd 0.01	U	nd 0.01	U
1,1,1-Trichloroethane			0.068 0.05		nd 0.005	U			nd 0.005	U	nd 0.005	U
Carbon Tetrachloride			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
Vinyl Acetate			nd 0.1	U	nd 0.01	U			nd 0.01	U	nd 0.01	U
Bromodichloromethane			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
1,2-Dichloropropane			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
cis-1,3-Dichloropropene			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
Trichloroethene			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
Dibromochloromethane			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
1,1,2-Trichloroethane			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
Benzene			1.6 0.05		nd 0.005	U			nd 0.005	U	nd 0.005	U
Trans-1,3-Dichloropropene			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
Bromoform			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
4-Methyl-2-pentanone			0.2 0.1		nd 0.01	U			nd 0.01	U	nd 0.01	U
2-Hexanone			nd 0.1	U	nd 0.01	U			nd 0.01	U	nd 0.01	U
Tetrachloroethene			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
1,1,2,2-Tetrachloroethane			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
Toluene			5.3 0.25		nd 0.005	U			nd 0.005	U	nd 0.005	U
Chlorobenzene			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
Ethylbenzene			0.84 0.05		nd 0.005	U			nd 0.005	U	nd 0.005	U
Styrene			0.056 0.05		nd 0.005	U			nd 0.005	U	nd 0.005	U
Total Xylenes			0.91 0.05		nd 0.005	U			nd 0.005	U	nd 0.005	U
Tetrahydrofuran			31 2.5		nd 0.005	U			nd 0.005	U	nd 0.005	U
Trichlorotrifluoroethane			nd 0.1	U	nd 0.01	U			nd 0.01	U	nd 0.01	U
Chlorodibromomethane												
2-Chloroethylvinylether												
Fluorotrichloromethane												
Dichlorodifluoromethane												

TABLE 8: GROUND WATER ANALYTICAL RESULTS
SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-10 DUP RERUN	MW-10	RINSE BLANK	RINSE BLANK	RINSE BLANK	TRIP BLANK
SAMPLING DATE	12/21/93	2/14/94	12/21/93	RERUN	2/16/94	12/21/93
SAMPLING DEPTH/INTERVAL (ft)	5-10	5-10	-	-	-	-
SEMI-VOLATILE ORGANICS (mg/L)						
Phenol	nd 0.1 U	0.067 0.1 J	nd 0.01 U	nd 0.01 U	nd 0.01 U	
bis(2-Chloroethyl) ether	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
2-Chlorophenol	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
1,3-Dichlorobenzene	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
1,4-Dichlorobenzene	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
Benzyl alcohol	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
1,2-Dichlorobenzene	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
2-Methylphenol	0.025 0.1 J	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
bis(2-Chloroisopropyl) ether	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
4-Methylphenol	0.045 0.1 J	0.035 0.1 J	nd 0.01 U	nd 0.01 U	nd 0.01 U	
N-Nitroso-Di-n-propylamine	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
Hexachloroethane	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
Nitrobenzene	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
Isophorone	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
2-Nitrophenol	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
2,4-Dimethylphenol	nd 0.1 U	0.064 0.1 J	nd 0.01 U	nd 0.01 U	nd 0.01 U	
Benzoic acid	nd 0.5 U	nd 0.5 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	
bis(2-Chloroethoxy)methane	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
2,4-Dichlorophenol	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
1,2,4-Trichlorobenzene	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
Naphthalene	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
4-Chloroaniline	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
Hexachlorobutadiene	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
4-Chloro-3-Methylphenol	nd 0.1 U	0.03 0.1 J	nd 0.01 U	nd 0.01 U	nd 0.01 U	
2-Methylnaphthalene	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
Hexachlorocyclopentadiene	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
2,4,6-Trichlorophenol	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
2,4,5-Trichlorophenol	nd 0.5 U	nd 0.5 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	
2-Chloronaphthalene	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
2-Nitroaniline	nd 0.5 U	nd 0.5 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	
Dimethyl Phthalate	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
Acenaphthylene	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
2,6-Dinitrotoluene	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
3-Nitroaniline	nd 0.5 U	nd 0.5 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	
Acenaphthene	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
2,4-Dinitrophenol	nd 0.5 U	nd 0.5 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	
4-Nitrophenol	nd 0.5 U	nd 0.5 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	
Dibenzofuran	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
2,4-Dinitrotoluene	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
Diethylphthalate	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
1-Chlorophenyl-phenylether	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
Fluorene	nd 0.1 U	nd 0.1 U	nd 0.01 U	nd 0.01 U	nd 0.01 U	
4-Nitroaniline	nd 0.5 U	nd 0.5 U	nd 0.05 U	nd 0.05 U	nd 0.05 U	

TABLE 9: GROUND WATER ANALYTICAL RESULTS

- QUALIFIED DATA (1993, 1994 data only)

SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	P1		P2		P3		P4		MW-1		MW-1		MW-1 RERUN		MW-1		MW-2	
SAMPLING DATE	5/9/91		5/9/91		5/9/91		5/9/91		11/7/91		12/21/93		12/21/93		2/15/94		11/7/91	
SAMPLING DEPTH/INTERVAL (ft)									4-9		4-9		4-9		4-9		5-10	
VOLATILE ORGANICS (mg/L)	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag
Chloromethane	nd 10		nd 1L		nd 0.002		nd 0.02		nd 0.05		nd 0.1	U			nd 0.1	U	nd 0.2	
Bromomethane	nd 10		nd 1L		nd 0.002		nd 0.02		nd 0.05		nd 0.1	U			nd 0.1	U	nd 0.2	
Vinyl Chloride	nd 5		nd 0.5L		nd 0.001		nd 0.01		1.1 0.05		0.07 0.1	J			0.25 0.1		0.26 0.2	
Chloroethane	nd 10		nd 1L		0.0044		0.024		1.9 1		1 0.1				0.95 0.1		nd 0.2	
Methylene Chloride	9.5		nd 0.5L		0.0019		0.012		0.15 0.025		nd 0.05	U			nd 0.05	U	12 0.5	
Acetone									0.13 0.05		nd 0.1	U			nd 0.1	U	4.7 1	
Carbon Disulfide									nd 0.025		nd 0.05	U			nd 0.05	U	0.75 0.1	
1,1-Dichloroethene	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U			nd 0.05	U	0.26 0.1	
1,1-Dichloroethane	nd 5		nd 0.5L		0.023		0.096		0.1 0.025		nd 0.05	U			0.036 0.05	J	0.46 0.1	
1,2-Dichloroethene (total)	nd 5		nd 0.5L		0.0048		0.021		1.1 0.025		0.16 0.05				0.1 0.05		3.9 0.1	
Chloroform	50		nd 0.5L		0.0011		nd 0.01		nd 0.025		nd 0.05	U			nd 0.05	U	54 10	
1,2-Dichloroethane	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
2-Butanone									nd 0.05		nd 0.1	U			nd 0.1	U	0.7 0.2	
1,1,1-Trichloroethane	nd 10		nd 1L		nd 0.002		0.029		0.016 0.025	J	nd 0.05	U			nd 0.05	U	2.5 0.1	
Carbon Tetrachloride	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U			nd 0.05	U	0.98 0.1	
Vinyl Acetate									nd 0.05		nd 0.1	U			nd 0.1	U	nd 0.2	
Bromodichloromethane	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
1,2-Dichloropropane	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U			nd 0.05	U	0.079 0.1	J
cis-1,3-Dichloropropene	nd 10		nd 1L		nd 0.002		nd 0.02		nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
Trichloroethene	nd 10		nd 1L		0.0032		0.028		0.057 0.025		0.28 0.05				nd 0.05	U	16 0.5	
Dibromochloromethane									nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
1,1,2-Trichloroethane	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
Benzene	nd 5		nd 0.5L		nd 0.001		nd 0.01		0.48 0.025		0.42 0.05				0.31 0.05		8.1 0.5	
Trans-1,3-Dichloropropene	nd 10		nd 1L		nd 0.002		nd 0.02		nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
Bromoform	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
4-Methyl-2-pentanone									0.039 0.05	J	nd 0.1	U			nd 0.1	U	nd 0.2	
2-Hexanone									nd 0.05		nd 0.1	U			nd 0.1	U	nd 0.2	
Tetrachloroethene	nd 10		nd 1L		nd 0.002		nd 0.02		nd 0.025		0.28 0.05				nd 0.05	U	0.44 0.1	
1,1,2,2-Tetrachloroethane	nd 10		nd 1L		nd 0.002		nd 0.02		nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
Toluene	470		nd 0.5L		nd 0.001		nd 0.01		0.53 0.025		0.38 0.05				0.15 0.05		300 10	
Chlorobenzene	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
Ethylbenzene	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		0.04 0.05	J			nd 0.05	U	0.3 0.1	
Styrene									nd 0.025		nd 0.05	U			nd 0.05	U	nd 0.1	
Total Xylenes	nd 15		nd 1.5L		nd 0.003		nd 0.03		nd 0.025		0.14 0.05				nd 0.05	U	2 0.1	
Tetrahydrofuran									2.1 0.5		9.2 0.5				9.5 2.5		nd 0.1	
Trichlorotrifluoroethane									nd 0.05		nd 0.1	U			nd 0.1	U	4.2 1	
Chlorodibromomethane	nd 5		nd 0.5L		nd 0.001		nd 0.01											
2-Chloroethylvinylether	nd 25		nd 2.5L		nd 0.005		nd 0.05											
Fluorotrichloromethane	nd 10		nd 1L		nd 0.002		nd 0.02											
Chlorodifluoromethane	nd 10		nd 1L		nd 0.002		nd 0.02											

TABLE 9: GROUND WATER ANALYTICAL RESULTS - QUALIFIED DATA
- QUALIFIED DATA (1993, 1994 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-2		MW-2 RERUN		MW-2		MW-2 DUP		MW-3		MW-3 Dup?		MW-3		MW-3 RERUN		MW-3	
SAMPLING DATE	12/21/93		12/21/93		2/15/94		2/15/94		11/7/91		11/7/91		12/21/93		12/21/93		2/16/94	
SAMPLING DEPTH/INTERVAL (ft)	5-10		5-10		5-10		5-10		5-10		?		5-10		5-10		5-10	
VOLATILE ORGANICS (mg/L)	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag
Chloromethane	nd 0.1	U			nd 10	U	nd 10	U	nd 0.1		nd 0.1		nd 0.1	U			nd 0.2	U
Bromomethane	nd 0.1	U			nd 10	U	nd 10	U	nd 0.1		nd 0.1		nd 0.1	U			nd 0.2	U
Vinyl Chloride	0.5 0.1				nd 10	U	nd 10	U	nd 0.1		nd 0.1		nd 0.1	U			nd 0.2	U
Chloroethane	nd 0.1	U			nd 10	U	nd 10	U	nd 0.1		nd 0.1		nd 0.1	U			nd 0.2	U
Methylene Chloride	12 0.5				15 5		15 5		nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Acetone	0.98 0.1	BJ			nd 10	U	nd 10	U	0.23 0.1		0.17 0.1		0.19 0.1	BJ			1.7 0.2	
Carbon Disulfide	0.93 0.05				1.5 5	J	1.6 5	J	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
1,1-Dichloroethene	0.31 0.05				nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
1,1-Dichloroethane	0.62 0.05				nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
1,2-Dichloroethene (total)	7.5 2.5	J			7.7 5		5.6 5		nd 0.05		nd 0.05		0.027 0.05	J			nd 0.1	U
Chloroform	62 2.5	J			95 5		100 5		nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
1,2-Dichloroethane	0.13 0.05				nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
2-Butanone	0.16 0.1				nd 10	U	nd 10	U	nd 0.1		nd 0.1		nd 0.1	U			nd 0.2	U
1,1,1-Trichloroethane	1.8 0.05				1.4 5	J	1.5 5	J	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Carbon Tetrachloride	0.066 0.05				nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Vinyl Acetate	nd 0.1	U			nd 10	U	nd 10	U	nd 0.1		nd 0.1		nd 0.1	U			nd 0.2	U
Bromodichloromethane	nd 0.05	U			nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
1,2-Dichloropropane	0.17 0.05				nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
cis-1,3-Dichloropropene	nd 0.05	U			nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Trichloroethene	15 0.5				19 5		19 5		nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Dibromochloromethane	nd 0.05	U			nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
1,1,2-Trichloroethane	0.075 0.05				nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Benzene	15 0.5				21 5		22 5		7 0.05		5.8 0.05		3.5 0.5				1.4 0.1	
Trans-1,3-Dichloropropene	nd 0.05	U			nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Bromoform	nd 0.05	U			nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
4-Methyl-2-pentanone	nd 0.1	U			nd 10	U	nd 10	U	nd 0.1		nd 0.1		nd 0.1	U			0.39 0.2	
2-Hexanone	nd 0.1	U			nd 10	U	nd 10	U	nd 0.1		nd 0.1		nd 0.1	U			nd 0.2	U
Tetrachloroethene	0.54 0.05				nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
1,1,2,2-Tetrachloroethane	nd 0.05	U			nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Toluene	230 5	J			140 5		140 5		1.8 0.05		1.2 0.05		0.31 0.05				0.42 0.1	
Chlorobenzene	nd 0.05	U			nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Ethylbenzene	0.44 0.05				nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Styrene	nd 0.05	U			nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Total Xylenes	2.7 0.05				2.8 5		2.6 5	J	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Tetrahydrofuran	nd 0.05	U			nd 5	U	nd 5	U	3 0.05		2.3 0.05		13 0.5				21 1	
Trichlorotrifluoroethane	nd 0.1	U			1.3 10	J	1.5 10	J	nd 0.1		nd 0.1		nd 0.1	U			nd 0.2	U
Chlorodibromomethane																		
2-Chloroethylvinylether																		
Flouorotrichloromethane																		
ichlorodifluoromethane																		

TABLE 9: GROUND WATER ANALYTICAL RESULTS

- QUALIFIED DATA (1993, 1994 data only)

SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	P1		P2		P3		P4		MW-1		MW-1		MW-1 RERUN		MW-1		MW-2	
SAMPLING DATE	5/9/91		5/9/91		5/9/91		5/9/91		11/7/91		12/21/93		12/21/93		2/15/94		11/7/91	
SAMPLING DEPTH/INTERVAL (ft)									4-9		4-9		4-9		4-9		5-10	
VOLATILE ORGANICS (mg/L)	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag
Chloromethane	nd 10		nd 1L		nd 0.002		nd 0.02		nd 0.05		nd 0.1	U	nd 0.1	U	nd 0.1	U	nd 0.2	
Bromomethane	nd 10		nd 1L		nd 0.002		nd 0.02		nd 0.05		nd 0.1	U	nd 0.1	U	nd 0.1	U	nd 0.2	
Vinyl Chloride	nd 5		nd 0.5L		nd 0.001		nd 0.01		1.1 0.05		0.07 0.1	J	0.25 0.1		0.26 0.2		0.26 0.2	
Chloroethane	nd 10		nd 1L		0.0044		0.024		1.9 1		1 0.1		0.95 0.1		nd 0.2		nd 0.2	
Methylene Chloride	9.5		nd 0.5L		0.0019		0.012		0.15 0.025		nd 0.05	U	nd 0.05	U	12 0.5		12 0.5	
Acetone									0.13 0.05		nd 0.1	U	nd 0.1	U	4.7 1		4.7 1	
Carbon Disulfide									nd 0.025		nd 0.05	U	nd 0.05	U	0.75 0.1		0.75 0.1	
1,1-Dichloroethene	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U	nd 0.05	U	0.26 0.1		0.26 0.1	
1,1-Dichloroethane	nd 5		nd 0.5L		0.023		0.096		0.1 0.025		nd 0.05	U	0.036 0.05	J	0.46 0.1		0.46 0.1	
1,2-Dichloroethene (total)	nd 5		nd 0.5L		0.0048		0.021		1.1 0.025		0.16 0.05		0.1 0.05		3.9 0.1		3.9 0.1	
Chloroform	50		nd 0.5L		0.0011		nd 0.01		nd 0.025		nd 0.05	U	nd 0.05	U	54 10		54 10	
1,2-Dichloroethane	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U	nd 0.05	U	nd 0.1		nd 0.1	
2-Butanone									nd 0.05		nd 0.1	U	nd 0.1	U	0.7 0.2		0.7 0.2	
1,1,1-Trichloroethane	nd 10		nd 1L		nd 0.002		0.029		0.016 0.025	J	nd 0.05	U	nd 0.05	U	2.5 0.1		2.5 0.1	
Carbon Tetrachloride	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U	nd 0.05	U	0.98 0.1		0.98 0.1	
Vinyl Acetate									nd 0.05		nd 0.1	U	nd 0.1	U	nd 0.2		nd 0.2	
Bromodichloromethane	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U	nd 0.05	U	nd 0.1		nd 0.1	
1,2-Dichloropropane	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U	nd 0.05	U	0.079 0.1	J	0.079 0.1	J
cis-1,3-Dichloropropene	nd 10		nd 1L		nd 0.002		nd 0.02		nd 0.025		nd 0.05	U	nd 0.05	U	nd 0.1		nd 0.1	
Trichloroethene	nd 10		nd 1L		0.0032		0.028		0.057 0.025		0.28 0.05		nd 0.05	U	16 0.5		16 0.5	
Dibromochloromethane									nd 0.025		nd 0.05	U	nd 0.05	U	nd 0.1		nd 0.1	
1,1,2-Trichloroethane	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U	nd 0.05	U	nd 0.1		nd 0.1	
Benzene	nd 5		nd 0.5L		nd 0.001		nd 0.01		0.48 0.025		0.42 0.05		0.31 0.05		8.1 0.5		8.1 0.5	
Trans-1,3-Dichloropropene	nd 10		nd 1L		nd 0.002		nd 0.02		nd 0.025		nd 0.05	U	nd 0.05	U	nd 0.1		nd 0.1	
Bromoform	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U	nd 0.05	U	nd 0.1		nd 0.1	
4-Methyl-2-pentanone									0.039 0.05	J	nd 0.1	U	nd 0.1	U	nd 0.2		nd 0.2	
2-Hexanone									nd 0.05		nd 0.1	U	nd 0.1	U	nd 0.2		nd 0.2	
Tetrachloroethene	nd 10		nd 1L		nd 0.002		nd 0.02		nd 0.025		0.28 0.05		nd 0.05	U	0.44 0.1		0.44 0.1	
1,1,2,2-Tetrachloroethane	nd 10		nd 1L		nd 0.002		nd 0.02		nd 0.025		nd 0.05	U	nd 0.05	U	nd 0.1		nd 0.1	
Toluene	470		nd 0.5L		nd 0.001		nd 0.01		0.53 0.025		0.38 0.05		0.15 0.05		300 10		300 10	
Chlorobenzene	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		nd 0.05	U	nd 0.05	U	nd 0.1		nd 0.1	
Ethylbenzene	nd 5		nd 0.5L		nd 0.001		nd 0.01		nd 0.025		0.04 0.05	J	nd 0.05	U	0.3 0.1		0.3 0.1	
Styrene									nd 0.025		nd 0.05	U	nd 0.05	U	nd 0.1		nd 0.1	
Total Xylenes	nd 15		nd 1.5L		nd 0.003		nd 0.03		nd 0.025		0.14 0.05		nd 0.05	U	2 0.1		2 0.1	
Tetrahydrofuran									2.1 0.5		9.2 0.5		9.5 2.5		nd 0.1		nd 0.1	
Trichlorotrifluoroethane									nd 0.05		nd 0.1	U	nd 0.1	U	4.2 1		4.2 1	
Chlorodibromomethane	nd 5		nd 0.5L		nd 0.001		nd 0.01											
2-Chloroethylvinylether	nd 25		nd 2.5L		nd 0.005		nd 0.05											
Fluorotrichloromethane	nd 10		nd 1L		nd 0.002		nd 0.02											
Chlorodifluoromethane	nd 10		nd 1L		nd 0.002		nd 0.02											

TABLE 9: GROUND WATER ANALYTICAL RESULTS

- QUALIFIED DATA (1993, 1994 data only)

SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	P1	P2	P3	P4	MW-1	MW-1	MW-1 RERUN	MW-1	MW-2
SAMPLING DATE	5/9/91	5/9/91	5/9/91	5/9/91	11/7/91	12/21/93	12/21/93	2/15/94	11/7/91
SAMPLING DEPTH/INTERVAL (ft)					4-9	4-9	4-9	4-9	5-10
SEMI-VOLATILE ORGANICS (mg/L)									
Phenol					0.023 0.06 J	0.012 0.05 J	0.014 0.11 J	nd 0.1 U	nd 2
bis(2-Chloroethyl) ether					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
2-Chlorophenol					nd 0.06	nd 0.05 U	nd 0.11 UJ	nd 0.1 U	nd 2
1,3-Dichlorobenzene	nd 5	nd 0.5L	nd 0.001	nd 0.01	nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
1,4-Dichlorobenzene	nd 5	nd 0.5L	nd 0.001	nd 0.01	nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Benzyl alcohol					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	0.45 2
1,2-Dichlorobenzene	nd 5	nd 0.5L	nd 0.001	nd 0.01	nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
2-Methylphenol					0.046 0.06 J	0.006 0.05 J	nd 0.11 UJ	nd 0.1 U	0.49 2 J
bis(2-Chloroisopropyl) ether					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
4-Methylphenol					0.014 0.06 J	nd 0.05 U	0.016 0.11 J	nd 0.1 U	nd 2
N-Nitroso-Di-n-propylamine					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Hexachloroethane					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Nitrobenzene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Isophorone					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
2-Nitrophenol					nd 0.06	nd 0.05 U	nd 0.11 UJ	nd 0.1 U	nd 2
2,4-Dimethylphenol					nd 0.06	nd 0.05 U	nd 0.11 UJ	nd 0.1 U	nd 2
Benzoic acid					nd 0.3	nd 0.25 U	nd 0.55 UJ	nd 0.5 U	1.5 9.8 J
bis(2-Chloroethoxy)methane					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
2,4-Dichlorophenol					nd 0.06	nd 0.05 U	nd 0.11 UJ	nd 0.1 U	nd 2
1,2,4-Trichlorobenzene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Naphthalene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
4-Chloroaniline					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Hexachlorobutadiene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
4-Chloro-3-Methylphenol					nd 0.06	nd 0.05 U	nd 0.11 UJ	nd 0.1 U	nd 2
2-Methylnaphthalene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Hexachlorocyclopentadiene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
2,4,6-Trichlorophenol					nd 0.06	nd 0.05 U	nd 0.11 UJ	nd 0.1 U	nd 2
2,4,5-Trichlorophenol					nd 0.3	nd 0.25 U	nd 0.55 UJ	nd 0.5 U	nd 9.8
2-Chloronaphthalene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
2-Nitroaniline					nd 0.3	nd 0.25 UJ	nd 0.55 UJ	nd 0.5 U	nd 9.8
Dimethyl Phthalate					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Acenaphthylene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
2,6-Dinitrotoluene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
3-Nitroaniline					nd 0.3	nd 0.25 UJ	nd 0.55 UJ	nd 0.5 U	nd 9.8
Acenaphthene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
2,4-Dinitrophenol					nd 0.3	nd 0.25 U	nd 0.55 UJ	nd 0.5 U	nd 9.8
4-Nitrophenol					nd 0.3	nd 0.25 U	nd 0.55 UJ	nd 0.5 U	nd 9.8
Dibenzofuran					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
2,4-Dinitrotoluene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Diethylphthalate					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
4-Chlorophenyl-phenylether					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Fluorene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
4-Nitroaniline					nd 0.3	nd 0.25 UJ	nd 0.55 UJ	nd 0.5 U	nd 9.8

TABLE 9: GROUND WATER ANALYTICAL RESULTS
- QUALIFIED DATA (1993, 1994 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	P1	P2	P3	P4	MW-1	MW-1	MW-1 RERUN	MW-1	MW-2
SAMPLING DATE	5/9/91	5/9/91	5/9/91	5/9/91	11/7/91	12/21/93	12/21/93	2/15/94	11/7/91
SAMPLING DEPTH/INTERVAL (ft)					4-9	4-9	4-9	4-9	5-10
SEMI-VOLATILE ORGANICS (mg/L)									
4,6-Dinitro-2-Methylphenol					nd 0.3	nd 0.25 U	nd 0.55 UJ	nd 0.5 U	nd 9.8
N-Nitrosodiphenylamine (1)					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
4-Bromophenyl-phenylether					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Hexachlorobenzene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Pentachlorophenol					nd 0.3	nd 0.25 U	nd 0.55 UJ	nd 0.5 U	nd 9.8
Phenanthrene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Anthracene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Di-n-Butylphthalate					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Fluoranthene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Pyrene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Butylbenzylphthalate					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
3,3'-Dichlorobenzidine					nd 0.12	nd 0.1 UJ	nd 0.22 UJ	nd 0.2 U	nd 3.9
Benzo (a) Anthracene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Chrysene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
bis (2-Ethylhexyl) Phthalate					nd 0.06	nd 0.05 UJ	0.033 0.11 J	nd 0.1 U	nd 2
Di-n-Octyl Phthalate					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Benzo (b) Fluoranthene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Benzo (k)Fluoranthene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Benzo (a) Pyrene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Indeno (1,2,3-cd) Pyrene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Dibenzo (a,h) Anthracene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Benzo (g,h,i) Perylene					nd 0.06	nd 0.05 UJ	nd 0.11 UJ	nd 0.1 U	nd 2
Pyridine					0.053 0.06 J	nd 0.25 UJ	nd 0.55 UJ	nd 0.5 U	2.4 2
3-Picoline					2.7 0.3	5.4 0.5 J	3.6 0.11 E	2.3 0.2	290 39
1-Methyl-2-pyrrolidinone*					0.11	0.14 0.1 J	0.18 0.22 J	0.18 0.1	12
N,N-Dimethylacetamide					0.18 0.06			0.043 0.1 J	850 39
Lab Name	RMT	RMT	RMT	RMT	WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	WESTON
Analytical Method	8010& 8020	8010& 8020	8010& 8020	8010& 8020	EPA 8240 & 8270	EPA 8240 & 8270	EPA 8240 & 8270	EPA 8240 & 8270	EPA 8240 & 8270
Source Document(s)	1	1	1	1	1	2	2	1	1

1 Canonie, 12/1991, Appendix C
2 Loose Lab Sheet provided by Roy F. Weston - Gulf Coast Lab. January, 1994
* Canonie, 12/1991, Appendix C, Lab report page 1c

RL Reporting Limit
U Compound was not detected at or above the reporting limit
J Result is an estimated value below the reporting limit or a tetatively identified compound (TIC)
UJ Analyte was not detected above the reported sample detection or quantitation limit but the limit is an estimated value.
B Compound was found in the blank and the sample
BJ Compound was found in the blank and the sample and the result is an estimated value
E Concentration exceeds the instrument calibration range and was subsequently diluted
Flag data qualifier
J Red color indicates the corrected data qualifier

TABLE 9: GROUND WATER ANALYTICAL RESULTS - QUALIFIED DATA
- QUALIFIED DATA (1993, 1994 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-2		MW-2 RERUN		MW-2		MW-2 DUP		MW-3		MW-3 Dup?		MW-3		MW-3 RERUN		MW-3	
SAMPLING DATE	12/21/93		12/21/93		2/15/94		2/15/94		11/7/91		11/7/91		12/21/93		12/21/93		2/16/94	
SAMPLING DEPTH/INTERVAL (ft)	5-10		5-10		5-10		5-10		5-10		?		5-10		5-10		5-10	
VOLATILE ORGANICS (mg/L)	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag
Chloromethane	nd 0.1	U			nd 10	U	nd 10	U	nd 0.1		nd 0.1		nd 0.1	U			nd 0.2	U
Bromomethane	nd 0.1	U			nd 10	U	nd 10	U	nd 0.1		nd 0.1		nd 0.1	U			nd 0.2	U
Vinyl Chloride	0.5 0.1				nd 10	U	nd 10	U	nd 0.1		nd 0.1		nd 0.1	U			nd 0.2	U
Chloroethane	nd 0.1	U			nd 10	U	nd 10	U	nd 0.1		nd 0.1		nd 0.1	U			nd 0.2	U
Methylene Chloride	12 0.5				15 5		15 5		nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Acetone	0.98 0.1	BJ			nd 10	U	nd 10	U	0.23 0.1		0.17 0.1		0.19 0.1	BJ			1.7 0.2	
Carbon Disulfide	0.93 0.05				1.5 5	J	1.6 5	J	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
1,1-Dichloroethene	0.31 0.05				nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
1,1-Dichloroethane	0.62 0.05				nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
1,2-Dichloroethene (total)	7.5 2.5	J			7.7 5		5.6 5		nd 0.05		nd 0.05		0.027 0.05	J			nd 0.1	U
Chloroform	62 2.5	J			95 5		100 5		nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
1,2-Dichloroethane	0.13 0.05				nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
2-Butanone	0.16 0.1				nd 10	U	nd 10	U	nd 0.1		nd 0.1		nd 0.1	U			nd 0.2	U
1,1,1-Trichloroethane	1.8 0.05				1.4 5	J	1.5 5	J	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Carbon Tetrachloride	0.066 0.05				nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Vinyl Acetate	nd 0.1	U			nd 10	U	nd 10	U	nd 0.1		nd 0.1		nd 0.1	U			nd 0.2	U
Bromodichloromethane	nd 0.05	U			nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
1,2-Dichloropropane	0.17 0.05				nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
cis-1,3-Dichloropropene	nd 0.05	U			nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Trichloroethene	15 0.5				19 5		19 5		nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Dibromochloromethane	nd 0.05	U			nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
1,1,2-Trichloroethane	0.075 0.05				nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Benzene	15 0.5				21 5		22 5		7 0.05		5.8 0.05		3.5 0.5				1.4 0.1	
Trans-1,3-Dichloropropene	nd 0.05	U			nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Bromoform	nd 0.05	U			nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
4-Methyl-2-pentanone	nd 0.1	U			nd 10	U	nd 10	U	nd 0.1		nd 0.1		nd 0.1	U			0.39 0.2	
2-Hexanone	nd 0.1	U			nd 10	U	nd 10	U	nd 0.1		nd 0.1		nd 0.1	U			nd 0.2	U
Tetrachloroethene	0.54 0.05				nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
1,1,2,2-Tetrachloroethane	nd 0.05	U			nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Toluene	230 5	J			140 5		140 5		1.8 0.05		1.2 0.05		0.31 0.05				0.42 0.1	
Chlorobenzene	nd 0.05	U			nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Ethylbenzene	0.44 0.05				nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Styrene	nd 0.05	U			nd 5	U	nd 5	U	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Total Xylenes	2.7 0.05				2.8 5		2.6 5	J	nd 0.05		nd 0.05		nd 0.05	U			nd 0.1	U
Tetrahydrofuran	nd 0.05	U			nd 5	U	nd 5	U	3 0.05		2.3 0.05		13 0.5				21 1	
Trichlorotrifluoroethane	nd 0.1	U			1.3 10	J	1.5 10	J	nd 0.1		nd 0.1		nd 0.1	U			nd 0.2	U
Chlorodibromomethane																		
2-Chloroethylvinylether																		
Fluorotrichloromethane																		
Chlorodifluoromethane																		

TABLE 9: GROUND WATER ANALYTICAL RESULTS - QUALIFIED DATA

- QUALIFIED DATA (1993, 1994 data only)

SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-2	MW-2 RERUN	MW-2	MW-2 DUP	MW-3	MW-3 Dup?	MW-3	MW-3 RERUN	MW-3
SAMPLING DATE	12/21/93	12/21/93	2/15/94	2/15/94	11/7/91	11/7/91	12/21/93	12/21/93	2/16/94
SAMPLING DEPTH/INTERVAL (ft)	5-10	5-10	5-10	5-10	5-10	?	5-10	5-10	5-10
SEMI-VOLATILE ORGANICS (mg/L)									
Phenol	nd 1 U	nd 1 UJ	nd 3.2 U	nd 2 U	0.022 0.076 J	0.024 0.088 J	nd 0.1 U	nd 0.1 UJ	nd 0.2 U
bis(2-Chloroethyl) ether	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
2-Chlorophenol	nd 1 U	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 UJ	nd 0.2 U
1,3-Dichlorobenzene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
1,4-Dichlorobenzene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Benzyl alcohol	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
1,2-Dichlorobenzene	0.15 1 J	0.14 1 J	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
2-Methylphenol	0.22 1 J	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 UJ	0.089 0.2 J
bis(2-Chloroisopropyl) ether	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
4-Methylphenol	0.5 1 J	0.52 1 J	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	0.016 0.1 J	nd 0.1 UJ	0.59 0.2
N-Nitroso-Di-n-propylamine	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Hexachloroethane	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Nitrobenzene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Isophorone	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
2-Nitrophenol	nd 1 U	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 UJ	nd 0.2 U
2,4-Dimethylphenol	nd 1 U	nd 1 UJ	nd 3.2 U	nd 2 U	0.039 0.076 J	0.037 0.088 J	0.02 0.1 J	0.019 0.1 J	nd 0.2 U
Benzoic acid	1.5 5 J	2.1 5 J	nd 16 U	nd 10 U	nd 0.38	nd 0.44	nd 0.5 U	nd 0.5 UJ	nd 1 U
bis(2-Chloroethoxy)methane	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
2,4-Dichlorophenol	nd 1 U	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 UJ	nd 0.2 U
1,2,4-Trichlorobenzene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Naphthalene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	0.05 0.076 J	0.055 0.088 J	0.03 0.1 J	0.032 0.1 J	nd 0.2 U
4-Chloroaniline	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Hexachlorobutadiene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
4-Chloro-3-Methylphenol	nd 1 U	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 UJ	nd 0.2 U
2-Methylnaphthalene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	0.007 0.076 J	0.008 0.088 J	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Hexachlorocyclopentadiene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
2,4,6-Trichlorophenol	nd 1 U	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 U	nd 0.1 UJ	nd 0.2 U
2,4,5-Trichlorophenol	nd 5 U	nd 5 UJ	nd 16 U	nd 10 U	nd 0.38	nd 0.44	nd 0.5 U	nd 0.5 UJ	nd 1 U
2-Chloronaphthalene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
2-Nitroaniline	nd 5 UJ	nd 5 UJ	nd 16 U	nd 10 U	nd 0.38	nd 0.44	nd 0.5 UJ	nd 0.5 UJ	nd 1 U
Dimethyl Phthalate	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Acenaphthylene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
2,6-Dinitrotoluene	nd 1 UJ	0.21 1 J	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
3-Nitroaniline	nd 5 UJ	nd 5 UJ	nd 16 U	nd 10 U	nd 0.38	nd 0.44	nd 0.5 UJ	nd 0.5 UJ	nd 1 U
Acenaphthene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	0.018 0.076 J	0.02 0.088 J	0.01 0.1 J	0.01 0.1 J	nd 0.2 U
2,4-Dinitrophenol	nd 5 U	nd 5 UJ	nd 16 U	nd 10 U	nd 0.38	nd 0.44	nd 0.5 U	nd 0.5 UJ	nd 1 U
4-Nitrophenol	nd 5 U	nd 5 UJ	nd 16 U	nd 10 U	nd 0.38	nd 0.44	nd 0.5 U	nd 0.5 UJ	nd 1 U
Dibenzofuran	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	0.009 0.076 J	0.01 0.088 J	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
2,4-Dinitrotoluene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Diethylphthalate	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
4-Chlorophenyl-phenylether	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Fluorene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	0.012 0.076 J	0.056 0.088 J	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
4-Nitroaniline	nd 5 UJ	nd 5 UJ	nd 16 U	nd 10 U	nd 0.38	nd 0.44	nd 0.5 UJ	nd 0.5 UJ	nd 1 U

TABLE 9: GROUND WATER ANALYTICAL RESULTS - QUALIFIED DATA
- QUALIFIED DATA (1993, 1994 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-2	MW-2 RERUN	MW-2	MW-2 DUP	MW-3	MW-3 Dup?	MW-3	MW-3 RERUN	MW-3
SAMPLING DATE	12/21/93	12/21/93	2/15/94	2/15/94	11/7/91	11/7/91	12/21/93	12/21/93	2/16/94
SAMPLING DEPTH/INTERVAL (ft)	5-10	5-10	5-10	5-10	5-10	?	5-10	5-10	5-10
SEMI-VOLATILE ORGANICS (mg/L)									
4,6-Dinitro-2-Methylphenol	nd 5 U	nd 5 UJ	nd 16 U	nd 10 U	nd 0.38	nd 0.44	nd 0.5 U	nd 0.5 UJ	nd 1 U
N-Nitrosodiphenylamine (1)	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
4-Bromophenyl-phenylether	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Hexachlorobenzene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Pentachlorophenol	nd 5 U	nd 5 UJ	nd 16 U	nd 10 U	nd 0.38	nd 0.44	nd 0.5 U	nd 0.5 UJ	nd 1 U
Phenanthrene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	0.011 0.076 J	0.013 0.088 J	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Anthracene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Di-n-Butylphthalate	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Fluoranthene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Pyrene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Butylbenzylphthalate	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
3,3'-Dichlorobenzidine	nd 2 UJ	nd 2 UJ	nd 6.4 U	nd 4 U	nd 0.15	nd 0.18	nd 0.2 UJ	nd 0.2 UJ	nd 0.4 U
Benzo (a) Anthracene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Chrysene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
bis (2-Ethylhexyl) Phthalate	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Di-n-Octyl Phthalate	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Benzo (b) Fluoranthene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Benzo (k)Fluoranthene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Benzo (a) Pyrene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Indeno (1,2,3-cd) Pyrene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Dibenzo (a,h) Anthracene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Benzo (g,h,i) Perylene	nd 1 UJ	nd 1 UJ	nd 3.2 U	nd 2 U	nd 0.076	nd 0.088	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 U
Pyridine	nd 5 UJ	nd 5 UJ	6.5 3.2	2.5 2	0.064 0.076 J	0.071 0.088 J	nd 0.5 UJ	nd 0.5 UJ	1.3 1
3-Picoline	670 50 J	230 1 E	190 160	160 160	4.6 0.38	4.9 0.44	9.9 1 J	4.6 0.1 E	530 100
1-Methyl-2-pyrrolidinone*	1100 100 J	160 2 E	74 160 J	61 160 J	0.16	0.2	1.3 0.2 J	1.4 0.2 J	140 10
N,N-Dimethylacetamide			1800 160	1500 160	22 1.5	2.7 1.8			21000 2000
Lab Name	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	WESTON	WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON
Analytical Method	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA
	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270
Source Document(s)	2	2	1	1	1	1	2	2	1

1 Canonie, 12/1991, Appendix C
2 Loose Lab Sheet provided by Roy F. Weston - Gulf Coast Lab. January, 1994
* Canonie, 12/1991, Appendix C, Lab report page 1c

RL Reporting Limit
U Compound was not detected at or above the reporting limit
J Result is an estimated value below the reporting limit or a tetatively identified compound (TIC)
UJ Analyte was not detected above the reported sample detection or quantitation limit but the limit is an estimated value.
B Compound was found in the blank and the sample
BJ Compound was found in the blank and the sample and the result is an estimated value
E Concentration exceeds the instrument calibration range and was subsequently diluted
Flag data qualifier
J Red color indicates the corrected data qualifier

TABLE 9: GROUND WATER ANALYTICAL RESULTS

- QUALIFIED DATA (1993, 1994 data only)

SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-4		MW-4 RERUN		MW-4		MW-5		MW-5 RERUN		MW-5		MW-6		MW-6 RERUN		MW-7			
SAMPLING DATE	12/21/93		12/21/93		2/15/94		12/20/93		12/20/93		2/15/94		12/21/93		12/21/93		12/21/93			
SAMPLING DEPTH/INTERVAL (ft)	5-10		5-10		5-10		5-10		5-10		5-10		5-10		5-10		5-10			
VOLATILE ORGANICS (mg/L)	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag		
Chloromethane	0.12	0.1			0.11	0.05	nd	0.01	U		nd	0.01	U	nd	0.1	U	nd	1	U	
Bromomethane	nd	0.1	U		nd	0.05	U	nd	0.01	U		nd	0.01	U	nd	0.1	U	nd	1	U
Vinyl Chloride	0.1	0.1			0.085	0.05		nd	0.01	U		nd	0.01	U	nd	0.1	U	1.9	1	
Chloroethane	nd	0.1	U		0.038	0.05	J	nd	0.01	U		nd	0.01	U	nd	0.1	U	6.1	1	
Methylene Chloride	1.8	0.05			1.5	0.25		nd	0.005	U		nd	0.005	U	nd	0.05	U	0.51	0.5	
Acetone	2.8	1	BJ		nd	0.05	U	nd	0.01	U		nd	0.01	U	nd	0.1	U	5.6	5	BJ
Carbon Disulfide	nd	0.05	U		nd	0.025	U	nd	0.005	U		nd	0.005	U	nd	0.05	U	nd	0.5	U
1,1-Dichloroethene	nd	0.05	U		nd	0.025	U	nd	0.005	U		nd	0.005	U	nd	0.05	U	nd	0.5	U
1,1-Dichloroethane	nd	0.05	U		0.018	0.025	J	0.016	0.005		0.004	0.005	J	nd	0.05	U	4.6	0.5		
1,2-Dichloroethene (total)	0.068	0.05			0.17	0.025		nd	0.005	U		nd	0.005	U	nd	0.05	U	3	0.5	
Chloroform	1.2	0.05			0.4	0.025		nd	0.005	U		nd	0.005	U	nd	0.05	U	nd	0.5	U
1,2-Dichloroethane	nd	0.05	U		nd	0.025	U	nd	0.005	U		nd	0.005	U	nd	0.05	U	nd	0.5	U
2-Butanone	0.21	0.1			0.17	0.05		nd	0.01	U		nd	0.01	U	nd	0.1	U	1.7	1	
1,1,1-Trichloroethane	nd	0.05	U		nd	0.025	U	nd	0.005	U		nd	0.005	U	nd	0.05	U	nd	0.5	U
Carbon Tetrachloride	nd	0.05	U		nd	0.025	U	nd	0.005	U		nd	0.005	U	nd	0.05	U	nd	0.5	U
Vinyl Acetate	nd	0.1	U		nd	0.05	U	nd	0.01	U		nd	0.01	U	nd	0.1	U	nd	1	U
Bromodichloromethane	nd	0.05	U		nd	0.025	U	nd	0.005	U		nd	0.005	U	nd	0.05	U	nd	0.5	U
1,2-Dichloropropane	nd	0.05	U		0.012	0.025	J	nd	0.005	U		nd	0.005	U	nd	0.05	U	nd	0.5	U
cis-1,3-Dichloropropene	nd	0.05	U		nd	0.025	U	nd	0.005	U		nd	0.005	U	nd	0.05	U	nd	0.5	U
Trichloroethene	0.026	0.05	J		nd	0.025	U	nd	0.005	U		nd	0.005	U	nd	0.05	U	nd	0.5	U
Dibromochloromethane	nd	0.05	U		nd	0.025	U	nd	0.005	U		nd	0.005	U	nd	0.05	U	nd	0.5	U
1,1,2-Trichloroethane	nd	0.05	U		nd	0.025	U	nd	0.005	U		nd	0.005	U	nd	0.05	U	nd	0.5	U
Benzene	5.5	0.5			3.2	0.25		0.003	0.005	J	0.003	0.005	J	nd	0.05	U	4.2	0.5		
Trans-1,3-Dichloropropene	nd	0.05	U		nd	0.025	U	nd	0.005	U		nd	0.005	U	nd	0.05	U	nd	0.5	U
Bromoform	nd	0.05	U		nd	0.025	U	nd	0.005	U		nd	0.005	U	nd	0.05	U	nd	0.5	U
4-Methyl-2-pentanone	0.83	0.1			0.7	0.5		nd	0.01	U		nd	0.01	U	nd	0.1	U	6.7	1	
2-Hexanone	nd	0.1	U		nd	0.05	U	nd	0.01	U		nd	0.01	U	nd	0.1	U	nd	1	U
Tetrachloroethene	nd	0.05	U		nd	0.025	U	nd	0.005	U		nd	0.005	U	nd	0.05	U	nd	0.5	U
1,1,2,2-Tetrachloroethane	nd	0.05	U		nd	0.025	U	nd	0.005	U		nd	0.005	U	nd	0.05	U	nd	0.5	U
Toluene	0.8	0.05			0.71	0.025		nd	0.005	U		nd	0.005	U	nd	0.05	U	13	2.5	J
Chlorobenzene	nd	0.05	U		nd	0.025	U	nd	0.005	U		nd	0.005	U	nd	0.05	U	nd	0.5	U
Ethylbenzene	0.11	0.05			0.077	0.025		nd	0.005	U		nd	0.005	U	nd	0.05	U	3.7	0.5	
Styrene	nd	0.05	U		nd	0.025	U	nd	0.005	U		nd	0.005	U	nd	0.05	U	nd	0.5	U
Total Xylenes	0.073	0.05			0.047	0.025		nd	0.005	U		nd	0.005	U	nd	0.05	U	2.9	0.5	
Tetrahydrofuran	20	0.5			23	0.25		0.015	0.005		0.096	0.005		6	0.25		22	2.5	J	
Trichlorotrifluoroethane	nd	0.1	U		nd	0.05	U	nd	0.01	U		nd	0.01	U	nd	0.1	U	nd	1	U
Chlorodibromomethane																				
2-Chloroethylvinylether																				
Flouorotrichloromethane																				
Dichlorodifluoromethane																				

TABLE 9: GROUND WATER ANALYTICAL RESULTS

- QUALIFIED DATA (1993, 1994 data only)

SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-4		MW-4 RERUN		MW-4		MW-5		MW-5 RERUN		MW-5		MW-6		MW-6 RERUN		MW-7	
SAMPLING DATE	12/21/93		12/21/93		2/15/94		12/20/93		12/20/93		2/15/94		12/21/93		12/21/93		12/21/93	
SAMPLING DEPTH/INTERVAL (ft)	5-10		5-10		5-10		5-10		5-10		5-10		5-10		5-10		5-10	
SEMI-VOLATILE ORGANICS (mg/L)																		
Phenol	nd	1.2	U	nd	1	UJ	nd	5	U	nd	0.01	U	nd	0.01	U	nd	0.02	U
bis(2-Chloroethyl) ether	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
2-Chlorophenol	nd	1.2	U	nd	1	UJ	nd	5	U	nd	0.01	U	nd	0.01	U	nd	0.02	U
1,3-Dichlorobenzene	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
1,4-Dichlorobenzene	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
Benzyl alcohol	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
1,2-Dichlorobenzene	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
2-Methylphenol	nd	1.2	U	nd	1	UJ	nd	5	U	nd	0.01	U	nd	0.01	U	nd	0.02	U
bis(2-Chloroisopropyl) ether	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
4-Methylphenol	0.36	1.2	J	0.33	1	J	nd	5	U	nd	0.01	U	nd	0.01	U	nd	0.02	U
N-Nitroso-Di-n-propylamine	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
Hexachloroethane	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
Nitrobenzene	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
Isophorone	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
2-Nitrophenol	nd	1.2	U	nd	1	UJ	nd	5	U	nd	0.01	U	nd	0.01	U	nd	0.02	U
2,4-Dimethylphenol	nd	1.2	U	nd	1	UJ	nd	5	U	nd	0.01	U	nd	0.01	U	nd	0.02	U
Benzoic acid	nd	6.2	U	nd	5	UJ	nd	25	U	nd	0.05	U	nd	0.05	U	nd	0.1	U
bis(2-Chloroethoxy)methane	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
2,4-Dichlorophenol	nd	1.2	U	nd	1	UJ	nd	5	U	nd	0.01	U	nd	0.01	U	nd	0.02	U
1,2,4-Trichlorobenzene	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
Naphthalene	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
4-Chloroaniline	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
Hexachlorobutadiene	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
4-Chloro-3-Methylphenol	nd	1.2	U	nd	1	UJ	nd	5	U	nd	0.01	U	nd	0.01	U	nd	0.02	U
2-Methylnaphthalene	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
Hexachlorocyclopentadiene	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
2,4,6-Trichlorophenol	nd	1.2	U	nd	1	UJ	nd	5	U	nd	0.01	U	nd	0.01	U	nd	0.02	U
2,4,5-Trichlorophenol	nd	6.2	U	nd	5	UJ	nd	25	U	nd	0.05	U	nd	0.05	UJ	nd	0.1	U
2-Chloronaphthalene	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
2-Nitroaniline	nd	6.2	UJ	nd	5	UJ	nd	25	U	nd	0.05	UJ	nd	0.05	UJ	nd	0.1	UJ
Dimethyl Phthalate	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
Acenaphthylene	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
2,6-Dinitrotoluene	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
3-Nitroaniline	nd	6.2	UJ	nd	5	UJ	nd	25	U	nd	0.05	UJ	nd	0.05	UJ	nd	0.1	UJ
Acenaphthene	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
2,4-Dinitrophenol	nd	6.2	U	nd	5	UJ	nd	25	U	nd	0.05	U	nd	0.05	UJ	nd	0.1	U
4-Nitrophenol	nd	6.2	U	nd	5	UJ	nd	25	U	nd	0.05	U	nd	0.05	UJ	nd	0.1	U
Dibenzofuran	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
2,4-Dinitrotoluene	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
ethylphthalate	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
4-Chlorophenyl-phenylether	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
Fluorene	nd	1.2	UJ	nd	1	UJ	nd	5	U	nd	0.01	UJ	nd	0.01	UJ	nd	0.02	UJ
4-Nitroaniline	nd	6.2	UJ	nd	5	UJ	nd	25	U	nd	0.05	UJ	nd	0.05	UJ	nd	0.1	UJ

TABLE 9: GROUND WATER ANALYTICAL RESULTS
- QUALIFIED DATA (1993, 1994 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-4		MW-4 RERUN		MW-4		MW-5		MW-5 RERUN		MW-5		MW-6		MW-6 RERUN		MW-7	
SAMPLING DATE	12/21/93		12/21/93		2/15/94		12/20/93		12/20/93		2/15/94		12/21/93		12/21/93		12/21/93	
SAMPLING DEPTH/INTERVAL (ft)	5-10		5-10		5-10		5-10		5-10		5-10		5-10		5-10		5-10	
SEMI-VOLATILE ORGANICS (mg/L)																		
4,6-Dinitro-2-Methylphenol	nd	6.2 U	nd	5 UJ	nd	25 U	nd	0.05 U	nd	0.05 UJ	nd	0.05 U	nd	0.1 U	nd	0.1 UJ	nd	0.25 U
N-Nitrosodiphenylamine (1)	nd	1.2 UJ	nd	1 UJ	nd	5 U	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.05 UJ
4-Bromophenyl-phenylether	nd	1.2 UJ	nd	1 UJ	nd	5 U	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.05 UJ
Hexachlorobenzene	nd	1.2 UJ	nd	1 UJ	nd	5 U	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.05 UJ
Pentachlorophenol	nd	6.2 U	nd	5 UJ	nd	25 U	nd	0.05 U	nd	0.05 UJ	nd	0.05 U	nd	0.1 U	nd	0.1 UJ	nd	0.25 U
Phenanthrene	nd	1.2 UJ	nd	1 UJ	nd	5 U	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.05 UJ
Anthracene	nd	1.2 UJ	nd	1 UJ	nd	5 U	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.05 UJ
Di-n-Butylphthalate	nd	1.2 UJ	nd	1 UJ	nd	5 U	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.05 UJ
Fluoranthene	nd	1.2 UJ	nd	1 UJ	nd	5 U	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.05 UJ
Pyrene	nd	1.2 UJ	nd	1 UJ	nd	5 U	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.05 UJ
Butylbenzylphthalate	nd	1.2 UJ	nd	1 UJ	nd	5 U	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.05 UJ
3,3'-Dichlorobenzidine	nd	2.5 UJ	nd	2 UJ	nd	10 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.02 U	nd	0.04 UJ	nd	0.04 UJ	nd	0.1 UJ
Benzo (a) Anthracene	nd	1.2 UJ	nd	1 UJ	nd	5 U	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.05 UJ
Chrysene	nd	1.2 UJ	nd	1 UJ	nd	5 U	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.05 UJ
bis (2-Ethylhexyl) Phthalate	nd	1.2 UJ	nd	1 UJ	nd	5 U	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.05 UJ
Di-n-Octyl Phthalate	nd	1.2 UJ	nd	1 UJ	nd	5 U	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.05 UJ
Benzo (b) Fluoranthene	nd	1.2 UJ	nd	1 UJ	nd	5 U	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.05 UJ
Benzo (k)Fluoranthene	nd	1.2 UJ	nd	1 UJ	nd	5 U	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.05 UJ
Benzo (a) Pyrene	nd	1.2 UJ	nd	1 UJ	nd	5 U	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.05 UJ
Indeno (1,2,3-cd) Pyrene	nd	1.2 UJ	nd	1 UJ	nd	5 U	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.05 UJ
Dibenzo (a,h) Anthracene	nd	1.2 UJ	nd	1 UJ	nd	5 U	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.05 UJ
Benzo (g,h,i) Perylene	nd	1.2 UJ	nd	1 UJ	nd	5 U	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	nd	0.02 UJ	nd	0.02 UJ	nd	0.05 UJ
Pyridine	nd	6.2 UJ	nd	5 UJ	nd	25 U	nd	0.05 UJ	nd	0.05 UJ	nd	0.05 U	nd	0.1 UJ	nd	0.1 UJ	3.4	25 J
3-Picoline	59	6.2 J	32	1 E	42	5	nd	0.01 UJ	nd	0.01 UJ	nd	0.01 U	0.66	0.05 J	0.28	0.02 J	26	5 J
1-Methyl-2-pyrrolidinone*	13	2.5 J	10	2 J	7.1	5	nd	0.02 UJ	nd	0.02 UJ	nd	0.01 U	nd	0.04 UJ	nd	0.04 UJ	23	10 J
N,N-Dimethylacetamide					2900 1000						nd 0.01 U							
Lab Name	R. F. WESTON		R. F. WESTON		R. F. WESTON		R. F. WESTON		R. F. WESTON		R. F. WESTON		R. F. WESTON		R. F. WESTON		R. F. WESTON	
Analytical Method	EPA		EPA		EPA		EPA		EPA		EPA		EPA		EPA		EPA	
	8240 & 8270		8240 & 8270		8240 & 8270		8240 & 8270		8240 & 8270		8240 & 8270		8240 & 8270		8240 & 8270		8240 & 8270	
Source Document(s)	2		2		1		2		2		1		2		2		2	

1 Canonie, 12/1991, Appendix C
2 Loose Lab Sheet provided by Roy F. Weston - Gulf Coast Lab. January, 1994
* Canonie, 12/1991, Appendix C, Lab report page 1c

RL Reporting Limit
U Compound was not detected at or above the reporting limit
J Result is an estimated value below the reporting limit or a tetatively identified compound (TIC)
UJ Analyte was not detected above the reported sample detection or quantitation limit but the limit is an estimated value.
B Compound was found in the blank and the sample
BJ Compound was found in the blank and the sample and the result is an estimated value
E Concentration exceeds the instrument calibration range and was subsequently diluted
Flag data qualifier
J Red color indicates the corrected data qualifier

TABLE 9: GROUND WATER ANALYTICAL RESULTS

- QUALIFIED DATA (1993, 1994 data only)

SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-7 RERUN		MW-7		MW-8		MW-8 RERUN		MW-8		MW-9		MW-9 RERUN		MW-9	
SAMPLING DATE	12/21/93		2/15/94		12/21/93		12/21/93		2/14/94		12/21/93		12/21/93		2/15/94	
SAMPLING DEPTH/INTERVAL (ft)	5-10		5-10		5-10		5-10		5-10		5-10		5-10		5-10	
VOLATILE ORGANICS (mg/L)	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag
Chloromethane			nd 0.5	U	nd 1	U			nd 0.5	U	nd 0.1	U	nd 0.01	U	nd 0.01	U
Bromomethane			nd 0.5	U	nd 1	U			nd 0.5	U	nd 0.1	U	nd 0.01	U	nd 0.01	U
Vinyl Chloride			0.24 0.5	J	0.67 1	J			0.67 0.5		nd 0.1	U	0.032 0.01		0.027 0.01	
Chloroethane			0.32 0.5	J	nd 1	U			nd 0.5	U	nd 0.1	U	0.006 0.01	J	nd 0.01	U
Methylene Chloride			nd 0.25	U	0.63 0.5				0.62 0.25		nd 0.05	U	nd 0.005	U	nd 0.005	U
Acetone			2.1 0.5		11 1	BJ			12 5		0.11 0.1	BJ	0.01 0.01	BU	nd 0.01	U
Carbon Disulfide			nd 0.25	U	nd 0.5	U			nd 0.25	U	nd 0.05	U	nd 0.005	U	nd 0.005	U
1,1-Dichloroethene			nd 0.25	U	0.72 0.5				nd 0.25	U	nd 0.05	U	nd 0.005	U	nd 0.005	U
1,1-Dichloroethane			0.32 0.25		1.1 0.5				1.2 0.25		0.078 0.05		0.027 0.005		0.045 0.005	
1,2-Dichloroethene (total)			0.63 0.25		2 0.5				3.2 0.25		0.047 0.05		0.05 0.005		0.051 0.005	
Chloroform			nd 0.25	U	2.7 0.5				nd 0.25	U	0.049 0.05	J	0.048 0.005		0.048 0.005	
1,2-Dichloroethane			nd 0.25	U	10 0.5				nd 0.25	U	nd 0.05	U	nd 0.005	U	nd 0.005	U
2-Butanone			nd 0.5	U	2.2 1				nd 0.5	U	nd 0.1	U	nd 0.01	U	nd 0.01	U
1,1,1-Trichloroethane			nd 0.25	U	3.1 0.5				4.2 0.25		nd 0.05	U	0.008 0.005		0.015 0.005	
Carbon Tetrachloride			nd 0.25	U	0.82 0.5				nd 0.25	U	nd 0.05	U	nd 0.005	U	nd 0.005	U
Vinyl Acetate			nd 0.5	U	nd 1	U			nd 0.5	U	nd 0.1	U	nd 0.01	U	nd 0.01	U
Bromodichloromethane			nd 0.25	U	nd 0.5	U			nd 0.25	U	nd 0.05	U	nd 0.005	U	nd 0.005	U
1,2-Dichloropropane			nd 0.25	U	nd 0.5	U			nd 0.25	U	nd 0.05	U	nd 0.005	U	nd 0.005	U
cis-1,3-Dichloropropene			nd 0.25	U	nd 0.5	U			nd 0.25	U	nd 0.05	U	nd 0.005	U	nd 0.005	U
Trichloroethene			nd 0.25	U	3.8 0.5				0.82 0.25		0.017 0.05	J	0.015 0.005		0.007 0.005	
Dibromochloromethane			nd 0.25	U	nd 0.5	U			nd 0.25	U	nd 0.05	U	nd 0.005	U	nd 0.005	U
1,1,2-Trichloroethane			nd 0.25	U	nd 0.5	U			nd 0.25	U	nd 0.05	U	nd 0.005	U	nd 0.005	U
Benzene			0.33 0.25		2.3 0.5				0.22 0.25	J	0.016 0.05	J	0.01 0.005		0.008 0.005	
Trans-1,3-Dichloropropene			nd 0.25	U	nd 0.5	U			nd 0.25	U	nd 0.05	U	nd 0.005	U	nd 0.005	U
Bromoform			nd 0.25	U	nd 0.5	U			nd 0.25	U	nd 0.05	U	nd 0.005	U	nd 0.005	U
4-Methyl-2-pentanone			1 0.5		nd 1	U			0.38 0.5	J	nd 0.1	U	nd 0.01	U	nd 0.01	U
2-Hexanone			nd 0.5	U	nd 1	U			nd 0.5	U	nd 0.1	U	nd 0.01	U	nd 0.01	U
Tetrachloroethene			nd 0.25	U	5 0.5				1.3 0.25		nd 0.05	U	nd 0.005	U	nd 0.005	U
1,1,2,2-Tetrachloroethane			nd 0.25	U	nd 0.5	U			nd 0.25	U	nd 0.05	U	nd 0.005	U	nd 0.005	U
Toluene			1.6 0.25		18 0.5				18 2.5		nd 0.05	U	nd 0.005	U	nd 0.005	U
Chlorobenzene			nd 0.25	U	3 0.5				nd 0.25	U	nd 0.05	U	nd 0.005	U	nd 0.005	U
Ethylbenzene			0.41 0.25		nd 0.5	U			nd 0.25	U	nd 0.05	U	nd 0.005	U	nd 0.005	U
Styrene			nd 0.25	U	nd 0.5	U			nd 0.25	U	nd 0.05	U	nd 0.005	U	nd 0.005	U
Total Xylenes			0.19 0.25	J	nd 0.5	U			0.22 0.25	J	nd 0.05	U	nd 0.005	U	nd 0.005	U
Tetrahydrofuran			22 2.5		26 1	J			23 2.5		0.51 0.05		0.089 0.005		0.52 0.025	
Trichlorotrifluoroethane			3.1 5	J	nd 1	U			9.1 0.5		nd 0.1	U	nd 0.01	U	nd 0.01	U
Chlorodibromomethane																
2-Chloroethylvinylether																
Fluorotrichloromethane																
Dichlorodifluoromethane																

TABLE 9: GROUND WATER ANALYTICAL RESULTS

- QUALIFIED DATA (1993, 1994 data only)

SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-7 RERUN	MW-7	MW-8	MW-8 RERUN	MW-8	MW-9	MW-9 RERUN	MW-9
SAMPLING DATE	12/21/93	2/15/94	12/21/93	12/21/93	2/14/94	12/21/93	12/21/93	2/15/94
SAMPLING DEPTH/INTERVAL (ft)	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10
SEMI-VOLATILE ORGANICS (mg/L)								
Phenol	nd 0.05 UJ	nd 0.4 U	nd 0.1 U	nd 0.2 UJ	nd 0.5 U	nd 0.01 U	nd 0.01 UJ	nd 0.01 U
bis(2-Chloroethyl) ether	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
2-Chlorophenol	nd 0.05 UJ	nd 0.4 U	nd 0.1 U	nd 0.2 UJ	nd 0.5 U	nd 0.01 U	nd 0.01 UJ	nd 0.01 U
1,3-Dichlorobenzene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
1,4-Dichlorobenzene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Benzyl alcohol	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
1,2-Dichlorobenzene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
2-Methylphenol	nd 0.05 UJ	nd 0.4 U	nd 0.1 U	nd 0.2 UJ	nd 0.5 U	nd 0.01 U	nd 0.01 UJ	nd 0.01 U
bis(2-Chloroisopropyl) ether	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
4-Methylphenol	0.059 0.05 J	0.21 0.4 J	nd 0.1 U	0.15 0.2 J	nd 0.5 U	nd 0.01 U	nd 0.01 UJ	nd 0.01 U
N-Nitroso-Di-n-propylamine	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Hexachloroethane	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Nitrobenzene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Isophorone	nd 0.05 UJ	nd 0.4 U	0.1 0.1 J	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
2-Nitrophenol	nd 0.05 UJ	nd 0.4 U	nd 0.1 U	nd 0.2 UJ	nd 0.5 U	nd 0.01 U	nd 0.01 UJ	nd 0.01 U
2,4-Dimethylphenol	0.053 0.05 J	nd 0.4 U	nd 0.1 U	nd 0.2 UJ	nd 0.5 U	nd 0.01 U	nd 0.01 UJ	nd 0.01 U
Benzoic acid	nd 0.25 UJ	1.1 2 J	nd 0.5 U	nd 1 UJ	nd 2.5 U	nd 0.05 U	nd 0.05 UJ	nd 0.05 U
bis(2-Chloroethoxy)methane	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
2,4-Dichlorophenol	nd 0.05 UJ	nd 0.4 U	nd 0.1 U	nd 0.2 UJ	nd 0.5 U	nd 0.01 U	nd 0.01 UJ	nd 0.01 U
1,2,4-Trichlorobenzene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Naphthalene	0.006 0.05 J	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
4-Chloroaniline	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Hexachlorobutadiene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
4-Chloro-3-Methylphenol	nd 0.05 UJ	nd 0.4 U	nd 0.1 U	nd 0.2 UJ	nd 0.5 U	nd 0.01 U	nd 0.01 UJ	nd 0.01 U
2-Methylnaphthalene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Hexachlorocyclopentadiene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
2,4,6-Trichlorophenol	nd 0.05 UJ	nd 0.4 U	nd 0.1 U	nd 0.2 UJ	nd 0.5 U	nd 0.01 U	nd 0.01 UJ	nd 0.01 U
2,4,5-Trichlorophenol	nd 0.25 UJ	nd 2 U	nd 0.5 U	nd 1 UJ	nd 2.5 U	nd 0.05 U	nd 0.05 UJ	nd 0.05 U
2-Chloronaphthalene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
2-Nitroaniline	nd 0.25 UJ	nd 2 U	nd 0.5 UJ	nd 1 UJ	nd 2.5 U	nd 0.05 UJ	nd 0.05 UJ	nd 0.05 U
Dimethyl Phthalate	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Acenaphthylene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
2,6-Dinitrotoluene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
3-Nitroaniline	nd 0.25 UJ	nd 2 U	nd 0.5 UJ	nd 1 UJ	nd 2.5 U	nd 0.05 UJ	nd 0.05 UJ	nd 0.05 U
Acenaphthene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
2,4-Dinitrophenol	nd 0.25 UJ	nd 2 U	nd 0.5 U	nd 1 UJ	nd 2.5 U	nd 0.05 U	nd 0.05 UJ	nd 0.05 U
4-Nitrophenol	nd 0.25 UJ	nd 2 U	nd 0.5 U	nd 1 UJ	nd 2.5 U	nd 0.05 U	nd 0.05 UJ	nd 0.05 U
Dibenzofuran	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
2,4-Dinitrotoluene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
ethylphthalate	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
4-Chlorophenyl-phenylether	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Fluorene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
4-Nitroaniline	nd 0.25 UJ	nd 2 U	nd 0.5 UJ	nd 1 UJ	nd 2.5 U	nd 0.05 UJ	nd 0.05 UJ	nd 0.05 U

TABLE 9: GROUND WATER ANALYTICAL RESULTS
- QUALIFIED DATA (1993, 1994 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-7 RERUN	MW-7	MW-8	MW-8 RERUN	MW-8	MW-9	MW-9 RERUN	MW-9
SAMPLING DATE	12/21/93	2/15/94	12/21/93	12/21/93	2/14/94	12/21/93	12/21/93	2/15/94
SAMPLING DEPTH/INTERVAL (ft)	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10
SEMI-VOLATILE ORGANICS (mg/L)								
4,6-Dinitro-2-Methylphenol	nd 0.25 UJ	nd 2 U	nd 0.5 U	nd 1 UJ	nd 2.5 U	nd 0.05 U	nd 0.05 UJ	nd 0.05 U
N-Nitrosodiphenylamine (1)	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
4-Bromophenyl-phenylether	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Hexachlorobenzene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Pentachlorophenol	nd 0.25 UJ	nd 2 U	nd 0.5 U	nd 1 UJ	nd 2.5 U	nd 0.05 U	nd 0.05 UJ	nd 0.05 U
Phenanthrene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Anthracene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Di-n-Butylphthalate	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Fluoranthene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Pyrene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Butylbenzylphthalate	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
3,3'-Dichlorobenzidine	nd 0.1 UJ	nd 0.8 U	nd 0.2 UJ	nd 0.4 UJ	nd 1 U	nd 0.02 UJ	nd 0.02 UJ	nd 0.02 U
Benzo (a) Anthracene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Chrysene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
bis (2-Ethylhexyl) Phthalate	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	0.001 0.01 J	nd 0.01 UJ	nd 0.01 U
Di-n-Octyl Phthalate	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Benzo (b) Fluoranthene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Benzo (k)Fluoranthene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Benzo (a) Pyrene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Indeno (1,2,3-cd) Pyrene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Dibenzo (a,h) Anthracene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Benzo (g,h,i) Perylene	nd 0.05 UJ	nd 0.4 U	nd 0.1 UJ	nd 0.2 UJ	nd 0.5 U	nd 0.01 UJ	nd 0.01 UJ	nd 0.01 U
Pyridine	1.3 0.25 E	2.5 2	33 25 J	19 1 E	21 2.5	nd 0.05 UJ	nd 0.05 UJ	nd 0.05 U
3-Picoline	9.2 0.05 E	13 2	360 100 J	62 0.2 E	92 25	0.14 0.01 J	0.073 0.01 J	0.15 0.01
1-Methyl-2-pyrrolidinone*	8.8 0.1 E	19 2	1100 200 J	200 0.4 E	200 25	0.005 0.02 J	0.005 0.02 J	0.007 0.01 J
N,N-Dimethylacetamide		11 2			53 25			nd 0.01 U
Lab Name	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON
Analytical Method	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA
	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270
Source Document(s)	2	1	2	2	1	2	2	1

1 Canonie, 12/1991, Appendix C
2 Loose Lab Sheet provided by Roy F. Weston - Gulf Coast Lab. January, 1994
* Canonie, 12/1991, Appendix C, Lab report page 1c

RL Reporting Limit
U Compound was not detected at or above the reporting limit
J Result is an estimated value below the reporting limit or a tetatively identified compound (TIC)
UJ Analyte was not detected above the reported sample detection or quantitation limit but the limit is an estimated value.
B Compound was found in the blank and the sample
BJ Compound was found in the blank and the sample and the result is an estimated value
E Concentration exceeds the instrument calibration range and was subsequently diluted
Flag data qualifier
J Red color indicates the corrected data qualifier

TABLE 9: GROUND WATER ANALYTICAL RESULTS

- QUALIFIED DATA (1993, 1994 data only)

SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-10		MW-10 RERUN		MW-10 DUP		MW-10 DUP RERUN		MW-10		RINSE BLANK		RINSE BLANK		TRIP BLANK		RINSE BLANK	
SAMPLING DATE	12/21/93		12/21/93		12/21/93		12/21/93		2/14/94		12/21/93		RERUN		12/21/93		2/16/94	
SAMPLING DEPTH/INTERVAL (ft)	5-10		5-10		5-10		5-10		5-10		-		-		-		-	
VOLATILE ORGANICS (mg/L)	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag	RL	Flag
Chloromethane	nd 1	U			nd 1	U			nd 0.1	U	nd 0.01	U			nd 0.01	U	nd 0.01	U
Bromomethane	nd 1	U			nd 1	U			nd 0.1	U	nd 0.01	U			nd 0.01	U	nd 0.01	U
Vinyl Chloride	nd 1	U			nd 1	U			0.064 0.1	J	nd 0.01	U			nd 0.01	U	nd 0.01	U
Chloroethane	1.5 1				1.6 1				1.1 0.1		nd 0.01	U			nd 0.01	U	nd 0.01	U
Methylene Chloride	nd 0.5	U			nd 0.5	U			0.057 0.05		nd 0.005	U			nd 0.005	U	nd 0.005	U
Acetone	nd 1	U			0.68 1	JB			0.32 0.1		nd 0.01	U			nd 0.01	U	nd 0.01	U
Carbon Disulfide	nd 0.5	U			nd 0.5	U			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
1,1-Dichloroethene	nd 0.5	U			nd 0.5	U			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
1,1-Dichloroethane	0.33 0.5	J			0.28 0.5	J			0.16 0.05		nd 0.005	U			nd 0.005	U	nd 0.005	U
1,2-Dichloroethene (total)	nd 0.5	U			nd 0.5	U			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
Chloroform	nd 0.5	U			nd 0.5	U			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
1,2-Dichloroethane	0.65 0.5				nd 0.5	U			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
2-Butanone	nd 1	U			nd 1	U			nd 0.1	U	nd 0.01	U			nd 0.01	U	nd 0.01	U
1,1,1-Trichloroethane	0.25 0.5	J			nd 0.5	U			0.068 0.05		nd 0.005	U			nd 0.005	U	nd 0.005	U
Carbon Tetrachloride	nd 0.5	U			nd 0.5	U			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
Vinyl Acetate	nd 1	U			nd 1	U			nd 0.1	U	nd 0.01	U			nd 0.01	U	nd 0.01	U
Bromodichloromethane	nd 0.5	U			nd 0.5	U			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
1,2-Dichloropropane	nd 0.5	U			nd 0.5	U			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
cis-1,3-Dichloropropene	nd 0.5	U			nd 0.5	U			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
Trichloroethene	nd 0.5	U			nd 0.5	U			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
Dibromochloromethane	nd 0.5	U			nd 0.5	U			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
1,1,2-Trichloroethane	nd 0.5	U			nd 0.5	U			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
Benzene	2.3 0.5				2.3 0.5				1.6 0.05		nd 0.005	U			nd 0.005	U	nd 0.005	U
Trans-1,3-Dichloropropene	nd 0.5	U			nd 0.5	U			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
Bromoform	nd 0.5	U			nd 0.5	U			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
4-Methyl-2-pentanone	nd 1	U			nd 1	U			0.2 0.1		nd 0.01	U			nd 0.01	U	nd 0.01	U
2-Hexanone	nd 1	U			nd 1	U			nd 0.1	U	nd 0.01	U			nd 0.01	U	nd 0.01	U
Tetrachloroethene	nd 0.5	U			nd 0.5	U			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
1,1,2,2-Tetrachloroethane	nd 0.5	U			nd 0.5	U			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
Toluene	6.6 0.5				6.6 0.5				5.3 0.25		nd 0.005	U			nd 0.005	U	nd 0.005	U
Chlorobenzene	nd 0.5	U			nd 0.5	U			nd 0.05	U	nd 0.005	U			nd 0.005	U	nd 0.005	U
Ethylbenzene	1.1 0.5				1 0.5				0.84 0.05		nd 0.005	U			nd 0.005	U	nd 0.005	U
Styrene	nd 0.5	U			nd 0.5	U			0.056 0.05		nd 0.005	U			nd 0.005	U	nd 0.005	U
Total Xylenes	nd 0.5	U			nd 0.5	U			0.91 0.05		nd 0.005	U			nd 0.005	U	nd 0.005	U
Tetrahydrofuran	32 1	J			34 1	J			31 2.5		nd 0.005	U			nd 0.005	U	nd 0.005	U
Trichlorotrifluoroethane	nd 1	U			nd 1	U			nd 0.1	U	nd 0.01	U			nd 0.01	U	nd 0.01	U
Chlorodibromomethane																		
2-Chloroethylvinylether																		
Fluorotrichloromethane																		
Chlorodifluoromethane																		

TABLE 9: GROUND WATER ANALYTICAL RESULTS

- QUALIFIED DATA (1993, 1994 data only)

SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-10	MW-10 RERUN	MW-10 DUP	MW-10 DUP RERUN	MW-10	RINSE BLANK	RINSE BLANK	TRIP BLANK	RINSE BLANK
SAMPLING DATE	12/21/93	12/21/93	12/21/93	12/21/93	2/14/94	12/21/93	RERUN	12/21/93	2/16/94
SAMPLING DEPTH/INTERVAL (ft)	5-10	5-10	5-10	5-10	5-10	-	-	-	-
SEMI-VOLATILE ORGANICS (mg/L)									
Phenol	0.062 0.05	nd 0.05 UJ	nd 0.1 U	nd 0.1 UJ	0.067 0.1 J	nd 0.01 U	nd 0.01 UJ		nd 0.01 U
bis(2-Chloroethyl) ether	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
2-Chlorophenol	nd 0.05 U	nd 0.05 UJ	nd 0.1 U	nd 0.1 UJ	nd 0.1 U	nd 0.01 U	nd 0.01 UJ		nd 0.01 U
1,3-Dichlorobenzene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
1,4-Dichlorobenzene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Benzyl alcohol	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
1,2-Dichlorobenzene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
2-Methylphenol	0.024 0.05 J	0.025 0.05 J	0.022 0.1 J	0.025 0.1 J	nd 0.1 U	nd 0.01 U	nd 0.01 UJ		nd 0.01 U
bis(2-Chloroisopropyl) ether	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
4-Methylphenol	0.04 0.05 J	0.045 0.05 J	0.041 0.1 J	0.045 0.1 J	0.035 0.1 J	nd 0.01 U	nd 0.01 UJ		nd 0.01 U
N-Nitroso-Di-n-propylamine	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Hexachloroethane	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Nitrobenzene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Isophorone	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
2-Nitrophenol	nd 0.05 U	nd 0.05 UJ	nd 0.1 U	nd 0.1 UJ	nd 0.1 U	nd 0.01 U	nd 0.01 UJ		nd 0.01 U
2,4-Dimethylphenol	0.046 0.05 J	0.046 0.05 J	0.04 0.1 J	nd 0.1 UJ	0.064 0.1 J	nd 0.01 U	nd 0.01 UJ		nd 0.01 U
Benzoic acid	nd 0.25 U	nd 0.25 UJ	nd 0.5 U	nd 0.5 UJ	nd 0.5 U	nd 0.05 U	nd 0.05 UJ		nd 0.05 U
bis(2-Chloroethoxy)methane	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
2,4-Dichlorophenol	nd 0.05 U	nd 0.05 UJ	nd 0.1 U	nd 0.1 UJ	nd 0.1 U	nd 0.01 U	nd 0.01 UJ		nd 0.01 U
1,2,4-Trichlorobenzene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Naphthalene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
4-Chloroaniline	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Hexachlorobutadiene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
4-Chloro-3-Methylphenol	nd 0.05 U	nd 0.05 UJ	nd 0.1 U	nd 0.1 UJ	0.03 0.1 J	nd 0.01 U	nd 0.01 UJ		nd 0.01 U
2-Methylnaphthalene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Hexachlorocyclopentadiene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
2,4,6-Trichlorophenol	nd 0.05 U	nd 0.05 UJ	nd 0.1 U	nd 0.1 UJ	nd 0.1 U	nd 0.01 U	nd 0.01 UJ		nd 0.01 U
2,4,5-Trichlorophenol	nd 0.25 U	nd 0.25 UJ	nd 0.5 U	nd 0.5 UJ	nd 0.5 U	nd 0.05 U	nd 0.05 UJ		nd 0.05 U
2-Chloronaphthalene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
2-Nitroaniline	nd 0.25 UJ	nd 0.25 UJ	nd 0.5 UJ	nd 0.5 UJ	nd 0.5 U	nd 0.05 UJ	nd 0.05 UJ		nd 0.05 U
Dimethyl Phthalate	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Acenaphthylene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
2,6-Dinitrotoluene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
3-Nitroaniline	nd 0.25 UJ	nd 0.25 UJ	nd 0.5 UJ	nd 0.5 UJ	nd 0.5 U	nd 0.05 UJ	nd 0.05 UJ		nd 0.05 U
Acenaphthene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
2,4-Dinitrophenol	nd 0.25 U	nd 0.25 UJ	nd 0.5 U	nd 0.5 UJ	nd 0.5 U	nd 0.05 U	nd 0.05 UJ		nd 0.05 U
4-Nitrophenol	nd 0.25 U	nd 0.25 UJ	nd 0.5 U	nd 0.5 UJ	nd 0.5 U	nd 0.05 U	nd 0.05 UJ		nd 0.05 U
Dibenzofuran	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
2,4-Dinitrotoluene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
ethylphthalate	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
4-Chlorophenyl-phenylether	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Fluorene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
4-Nitroaniline	nd 0.25 UJ	nd 0.25 UJ	nd 0.5 UJ	nd 0.5 UJ	nd 0.5 U	nd 0.05 UJ	nd 0.05 UJ		nd 0.05 U

TABLE 9: GROUND WATER ANALYTICAL RESULTS
- QUALIFIED DATA (1993, 1994 data only)
SAFETY-KLEEN SITE, CHICAGO, IL

WELL I.D.	MW-10	MW-10 RERUN	MW-10 DUP	MW-10 DUP RERUN	MW-10	RINSE BLANK	RINSE BLANK	TRIP BLANK	RINSE BLANK
SAMPLING DATE	12/21/93	12/21/93	12/21/93	12/21/93	2/14/94	12/21/93	RERUN	12/21/93	2/16/94
SAMPLING DEPTH/INTERVAL (ft)	5-10	5-10	5-10	5-10	5-10	-	-	-	-
SEMI-VOLATILE ORGANICS (mg/L)									
4,6-Dinitro-2-Methylphenol	nd 0.25 U	nd 0.25 UJ	nd 0.5 U	nd 0.5 UJ	nd 0.5 U	nd 0.05 U	nd 0.05 UJ		nd 0.05 U
N-Nitrosodiphenylamine (1)	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
4-Bromophenyl-phenylether	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Hexachlorobenzene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Pentachlorophenol	nd 0.25 U	nd 0.25 UJ	nd 0.5 U	nd 0.5 UJ	nd 0.5 U	nd 0.05 U	nd 0.05 UJ		nd 0.05 U
Phenanthrene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Anthracene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Di-n-Butylphthalate	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Fluoranthene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Pyrene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Butylbenzylphthalate	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
3,3'-Dichlorobenzidine	nd 0.1 UJ	nd 0.1 UJ	nd 0.2 UJ	nd 0.2 UJ	nd 0.2 U	nd 0.02 UJ	nd 0.02 UJ		nd 0.02 U
Benzo (a) Anthracene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Chrysene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
bis (2-Ethylhexyl) Phthalate	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Di-n-Octyl Phthalate	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Benzo (b) Fluoranthene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Benzo (k)Fluoranthene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Benzo (a) Pyrene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Indeno (1,2,3-cd) Pyrene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Dibenzo (a,h) Anthracene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Benzo (g,h,i) Perylene	nd 0.05 UJ	nd 0.05 UJ	nd 0.1 UJ	nd 0.1 UJ	nd 0.1 U	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
Pyridine	nd 0.25 UJ	nd 0.25 UJ	nd 0.5 UJ	nd 0.5 UJ	nd 0.5 U	nd 0.05 UJ	nd 0.05 UJ		nd 0.05 U
3-Picoline	67 10 J	10 0.05 E	52 10 J	24 0.1 E	68 4	nd 0.01 UJ	nd 0.01 UJ		nd 0.01 U
1-Methyl-2-pyrrolidinone*	0.4 0.1 J	0.52 0.1 J	0.42 0.2 J	0.55 0.2 J	0.75 0.1	nd 0.02 UJ	nd 0.02 UJ		nd 0.01 U
N,N-Dimethylacetamide					1.1 0.1				nd 0.01 U
Lab Name	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON	R. F. WESTON
Analytical Method	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA
	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270	8240 & 8270
Source Document(s)	2	2	2	2	1	2	2	2	1

1 Canonie, 12/1991, Appendix C

2 Loose Lab Sheet provided by Roy F. Weston - Gulf Coast Lab. January, 1994

* Canonie, 12/1991, Appendix C, Lab report page 1c

RL Reporting Limit

U Compound was not detected at or above the reporting limit

J Result is an estimated value below the reporting limit or a tetatively identified compound (TIC)

UJ Analyte was not detected above the reported sample detection or quantitation limit but the limit is an estimated value.

B Compound was found in the blank and the sample

BJ Compound was found in the blank and the sample and the result is an estimated value

E Concentration exceeds the instrument calibration range and was subsequently diluted

Flag data qualifier

J Red color indicates the corrected data qualifier

TABLE 10: APPENDIX 9 / APPENDIX I SCAN
GROUND WATER ANALYTICAL RESULTS FOR MW-2 (FEBRUARY 14-16, 1994)

SAFETY-KLEEN CHICAGO RECYCLE CENTER, CHICAGO,IL

WELL I.D.		MW-2		MW-2 Duplicate	
SAMPLING DATE		2/15/94	5-10	2/15/94	5-10
SAMPLING DEPTH/INTERVAL (ft)					
INORGANICS (mg/L)		RL	Flag	RL	Flag
Cyanide, Total		nd 0.005	U	nd 0.005	U
Sulfide		nd 1	U	nd 1	U
Silver, Total		nd 0.03	U	nd 0.03	U
Arsenic, Total		0.0096 0.004		0.011 0.002	
Barium, Total		0.095 0.05		0.099 0.05	
Beryllium, Total		nd 0.005	U	nd 0.005	U
Cadmium, Total		nd 0.01	U	nd 0.01	U
Cobalt, Total		nd 0.02	U	nd 0.02	U
Chromium, Total		0.021 0.02	U	0.026 0.02	U
Copper, Total		nd 0.02	U	nd 0.02	U
Mercury, Total		nd 0.0002	U	nd 0.0002	U
Nickel, Total		nd 0.02	U	nd 0.02	U
Lead, Total		0.0069 0.002	U	0.011 0.002	U
Antimony, Total		nd 0.1	U	nd 0.1	U
Selenium, Total		nd 0.002	U	nd 0.002	U
Tin, Total		nd 0.1	U	nd 0.1	U
Thallium, Total		nd 0.5	U	nd 0.5	U
Vanadium, Total		nd 0.01	U	nd 0.01	U
Zinc, Total		0.089 0.01	U	0.14 0.01	U
VOLATILE ORGANICS (mg/L)		RL	Flag	RL	Flag
Chloromethane		nd 10	U	nd 10	U
Bromomethane		nd 10	U	nd 10	U
Vinyl Chloride		nd 10	U	nd 10	U
Chloroethane		15 5	U	15 5	U
Methylene Chloride		nd 10	U	nd 10	U
Acetone		1.5 5	U	1.6 5	U
Carbon Disulfide		nd 5	U	nd 5	U
1,1-Dichloroethene		nd 5	U	nd 5	U
1,1-Dichloroethane		7.7 5	U	5.6 5	U
1,2-Dichloroethene (total)		95 5	U	100 5	U
Chloroform		nd 5	U	nd 5	U
1,2-Dichloroethane		nd 10	U	nd 10	U
2-Butanone		1.4 5	U	1.5 5	U
1,1,1-Trichloroethane		nd 5	U	nd 5	U
Carbon Tetrachloride		nd 10	U	nd 10	U
Vinyl Acetate		nd 5	U	nd 5	U
Bromodichloromethane		nd 5	U	nd 5	U
1,2-Dichloropropane		nd 5	U	nd 5	U
cis-1,3-Dichloropropene		19 5	U	19 5	U
Trichloroethene		nd 5	U	nd 5	U
Dibromochloromethane		nd 5	U	nd 5	U
1,1,2-Trichloroethane		21 5	U	22 5	U
Benzene		nd 5	U	nd 5	U
Trans-1,3-Dichloropropene		nd 5	U	nd 5	U
Bromoform		nd 10	U	nd 10	U
4-Methyl-2-pentanone		nd 10	U	nd 10	U
2-Hexanone		nd 5	U	nd 5	U
Tetrachloroethene		nd 5	U	nd 5	U
1,1,2,2-Tetrachloroethane		140 5	U	140 5	U
Toluene		nd 5	U	nd 5	U
Chlorobenzene		nd 5	U	nd 5	U
Ethylbenzene		nd 5	U	nd 5	U
Styrene		nd 5	U	nd 5	U
Xylene (total)		2.8 5	U	2.6 5	U
Acrolein		nd 500	U	nd 500	U
Acrylonitrile		nd 100	U	nd 100	U
Trichlorofluoromethane		nd 10	U	nd 10	U
Dichlorodifluoromethane		nd 20	U	nd 20	U
Acetonitrile		nd 100	U	nd 100	U
Iodomethane		nd 10	U	nd 10	U
Propionitrile (Ethyl Cyanide)		nd 50	U	nd 50	U
3-Chloropropene		nd 20	U	nd 20	U
Methacrylonitrile		nd 20	U	nd 20	U
Dibromomethane		nd 20	U	nd 20	U
Isobutyl alcohol		nd 2000	U	nd 2000	U
1,2-Dibromoethane		nd 20	U	nd 20	U
1,1,1,2-Tetrachloroethane		nd 10	U	nd 10	U
1,2,3-Trichloropropene		nd 20	U	nd 20	U
trans-1,4-Dichloro-2-butene		nd 20	U	nd 20	U
1,2-Dibromo-3-chloropropane		nd 100	U	nd 100	U
2-Chloro-1,3-Butadiene		1.3 10	U	1.5 10	U
Trichlorotrifluoroethane		nd 5	U	nd 5	U
Tetrahydrofuran		nd 20	U	nd 20	U
Methylmethacrylate		nd 20	U	nd 20	U
Ethylmethacrylate		nd 20	U	nd 20	U
Pentachloroethane		nd 20	U	nd 20	U
SEMI-VOLATILE ORGANICS (mg/L)		RL	Flag	RL	Flag
Phenol		nd 3.2	U	nd 2	U
bis(2-Chloroethyl)ether		nd 3.2	U	nd 2	U
2-Chlorophenol		nd 3.2	U	nd 2	U
1,3-Dichlorobenzene		nd 3.2	U	nd 2	U
1,4-Dichlorobenzene		nd 3.2	U	nd 2	U
Benzyl alcohol		nd 3.2	U	nd 2	U
1,2-Dichlorobenzene		nd 3.2	U	nd 2	U
2-Methylphenol		nd 3.2	U	nd 2	U
bis(2-Chloroisopropyl)ether		nd 3.2	U	nd 2	U
4-Methylphenol		nd 3.2	U	nd 2	U
N-Nitroso-Di-n-propylamine		nd 3.2	U	nd 2	U
Hexachloroethane		nd 3.2	U	nd 2	U
Nitrobenzene		nd 3.2	U	nd 2	U
Isophorone		nd 3.2	U	nd 2	U
2-Nitrophenol		nd 3.2	U	nd 2	U
2,4-Dimethylphenol		nd 3.2	U	nd 2	U
Benzoic acid		nd 16	U	nd 10	U
bis(2-Chloroethoxy)methane		nd 3.2	U	nd 2	U
2,4-Dichlorophenol		nd 3.2	U	nd 2	U
1,2,4-Trichlorobenzene		nd 3.2	U	nd 2	U
Naphthalene		nd 3.2	U	nd 2	U
4-Chloroaniline		nd 3.2	U	nd 2	U
Hexachlorobutadiene		nd 3.2	U	nd 2	U
4-Chloro-3-methylphenol		nd 3.2	U	nd 2	U
2-Methylnaphthalene		nd 3.2	U	nd 2	U
Hexachlorocyclopentadiene		nd 3.2	U	nd 2	U
2,4,6-Trichlorophenol		nd 3.2	U	nd 2	U
2,4,5-Trichlorophenol		nd 16	U	nd 10	U
2-Chloronaphthalene		nd 3.2	U	nd 2	U
2-Nitroaniline		nd 16	U	nd 10	U
Dimethylphthalate		nd 3.2	U	nd 2	U
Acenaphthylene		nd 3.2	U	nd 2	U
2,6-Dinitrotoluene		nd 3.2	U	nd 2	U
3-Nitroaniline		nd 16	U	nd 10	U
Acenaphthene		nd 3.2	U	nd 2	U
2,4-Dinitrophenol		nd 16	U	nd 10	U

TABLE 10: APPENDIX 9 / APPENDIX I SCAN
GROUND WATER ANALYTICAL RESULTS FOR MW-2 (FEBRUARY 14-16, 1994)
SAFETY-KLEEN CHICAGO RECYCLE CENTER, CHICAGO,IL

WELL I.D.		MW-2	MW-2 Duplicate
SAMPLING DATE		2/15/94	2/15/94
SAMPLING DEPTH/INTERVAL (ft)		5-10	5-10
4-Nitrophenol		nd 16	nd 10
Dibenzofuran		nd 3.2	nd 2
2,4-Dinitrotoluene		nd 3.2	nd 2
Diethylphthalate		nd 3.2	nd 2
4-Chlorophenyl-phenylether		nd 3.2	nd 2
Fluorene		nd 3.2	nd 2
4-Nitroaniline		nd 16	nd 10
4,6-Dinitro-2-methylphenol		nd 16	nd 10
N-Nitrosodiphenylamine (1)		nd 3.2	nd 2
4-Bromophenyl-phenylether		nd 3.2	nd 2
Hexachlorobenzene		nd 3.2	nd 2
Pentachlorophenol		nd 16	nd 10
Phenanthrene		nd 3.2	nd 2
Anthracene		nd 3.2	nd 2
Di-n-Butylphthalate		nd 3.2	nd 2
Fluoranthene		nd 3.2	nd 2
Pyrene		nd 3.2	nd 2
Butylbenzylphthalate		nd 3.2	nd 2
3,3'-Dichlorobenzidine		nd 6.4	nd 4
Benzo(a)anthracene		nd 3.2	nd 2
Chrysene		nd 3.2	nd 2
bis(2-Ethylhexyl)phthalate		nd 3.2	nd 2
Di-n-Octyl phthalate		nd 3.2	nd 2
Benzo(b)fluoranthene		nd 3.2	nd 2
Benzo(k)fluoranthene		nd 3.2	nd 2
Benzo(a)pyrene		nd 3.2	nd 2
Indeno(1,2,3-cd)pyrene		nd 3.2	nd 2
Dibenz(a,h)anthracene		nd 3.2	nd 2
Benzo(g,h,i)perylene		nd 3.2	nd 2
1,4-Dioxane		nd 3.2	nd 2
Methyl methacrylate		nd 3.2	nd 2
Pyridine		6.5 3.2	2500 2
N-Nitrosodimethylamine		nd 3.2	nd 2
Ethyl methacrylate		nd 3.2	nd 2
2-Picoline		nd 3.2	nd 2
N-Nitrosomethylethylamine		nd 3.2	nd 2
Methyl methanesulfonate		nd 3.2	nd 2
N-Nitrosodiethylamine		nd 3.2	nd 2
Ethyl methanesulfonate		nd 3.2	nd 2
Aniline		nd 3.2	nd 2
Pentachloroethane		nd 3.2	nd 2
3-Methylphenol		nd 3.2	nd 2
N-Nitrosopyrrolidine		nd 3.2	nd 2
Acetophenone		1.5 3.2	1.2 2
N-Nitrosomorpholine		nd 3.2	nd 2
o-Toluidine		nd 3.2	nd 2
N-Nitrosopiperidine		nd 16	nd 10
a,a-Dimethylphenethylamine		nd 3.2	nd 2
2,6-Dichlorophenol		nd 3.2	nd 2
Hexachloropropene		nd 3.2	nd 2
p-Phenylenediamine		nd 3.2	nd 2
N-Nitroso-di-n-butylamine		nd 3.2	nd 2
Safrrole		nd 3.2	nd 2
1,2,4,5-Tetrachlorobenzene		nd 3.2	nd 2
Isosafrole		nd 3.2	nd 2
1,4-Naphthoquinone		nd 3.2	nd 2
1,3-Dinitrobenzene		nd 3.2	nd 2
Pentachlorobenzene		nd 3.2	nd 2
1-Naphthylamine		nd 3.2	nd 2
2-Naphthylamine		nd 3.2	nd 2
2,3,4,6-Tetrachlorophenol		nd 3.2	nd 2
1,3,5-Trinitrobenzene		nd 3.2	nd 2
Diallylate		nd 3.2	nd 2
Phenacetin		nd 3.2	nd 2
Diphenylamine		nd 3.2	nd 2
5-Nitro-o-toluidine		nd 3.2	nd 2
4-Aminobiphenyl		nd 3.2	nd 2
Pronamide		nd 3.2	nd 2
2-sec-Butyl-4,6-dinitrophenol		nd 16	nd 10
Pentachloronitrobenzene		nd 16	nd 10
4-Nitroquinoline-1-oxide		nd 6.4	nd 4
Methapyrilene		nd 3.2	nd 2
Aramite		nd 6.4	nd 4
Chlorobenzilate		nd 3.2	nd 2
p-Dimethylaminoazobenzene		nd 3.2	nd 2
3,3'-Dimethylbenzidine		nd 3.2	nd 2
2-Acetylaminofluorene		nd 3.2	nd 2
7,12-Dimethylbenz(a)anthracene		nd 3.2	nd 2
Hexachlorophene		nd 29	nd 18
3-Methylcholanthrene		nd 3.2	nd 2
3-Picoline		190 160	160 160
1-Methyl-2-pyrrolidinone		74 160	61 160
N,N-Dimethylacetamide		1800 160	1500 160
PCBs (mg/L)		RL	RL
Aroclor-1016		nd 0.0025	nd 0.0025
Aroclor-1221		nd 0.0025	nd 0.0025
Aroclor-1232		nd 0.0025	nd 0.0025
Aroclor-1242		nd 0.0025	nd 0.0025
Aroclor-1248		nd 0.005	nd 0.005
Aroclor-1254		nd 0.005	nd 0.005
Aroclor-1260		nd 0.005	nd 0.005
Lab Name		WESTON/Gulf Coast	WESTON/Gulf Coast
Analytical Method		EPA Appendix IX	EPA Appendix IX

Source Document(s): the electronic disk provided by WESTON-GULF COAST, INC
(RFW Batch Number: 9402G294), March 4, 1994

RL Reporting Limit
Flag data qualifier
U Compound was not detected at or above the reporting limit
J Result is an estimated value below the reporting limit or a relatively identified compound (TIC)

TABLE 12. SUMMARY OF HYDRAULIC CONDUCTIVITY TESTS, Safety-Kleen Chicago Recycle Center

	HYDRAULIC CONDUCTIVITY (cm/sec)			
	MW2	MW8	MW9	SB10 (14.5'-15')
<i>Monitoring Well/Soil Boring ---</i>				
<i>Soil Type ---</i>	clayey silt to silty clay	clayey silt to silty clay	clayey silt to silty clay	clay
TEST TYPE				
Solid Slug Falling Head Test		4.26E-04		
Solid Slug Rising Head Test	2.46E-05	4.82E-04		
Pneumatic Rising Head Test		8.16E-04	2.67E-04	
		7.41E-04	2.97E-04	
Laboratory Permeability Testing				2.40E-08

TABLE 13. SUMMARY OF DETECTED COMPOUNDS IN SOIL AND OCCURRENCE (Safety-Kleen Chicago Recycle Center)

[illegible]

na: not analyzed
B: blank contamination detected in sample
~: quantitation approximate

TABLE 14: SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER AND OCCURRENCE (Safety-Kleen Chicago Recycle Center)

WELL ---	P1	P2	P3	P4	MW-1			MW-2			MW-3			MW-4		MW-5		MW-6	MW-7		MW-8		MW-9		MW-10	
Sampling Date ---	May-91	May-91	May-91	May-91	Nov-91	Dec-93	Feb-94	Nov-91	Dec-93	Feb-94	Nov-91	Dec-93	Feb-94	Dec-93	Feb-94	Dec-93	Feb-94	Dec-93	Dec-93	Feb-94	Dec-93	Feb-94	Dec-93	Feb-94	Dec-93	Feb-94
Detected Metals* (mg/l)																										
Arsenic (total)										0.011																
Barium (total)										0.099																
Chromium (total)										0.026																
Lead (total)										0.011																
Zinc (total)										0.14																
Detected VOCs (mg/l)																										
Chloromethane														0.12	0.11											
Vinyl Chloride					1.1	~070	0.25	0.26	0.5	nd 10				0.1	0.085				1.9	~0.240	~0.670	0.67	0.032	0.027	nd 1.000	~0.064
Chloroethane			0.0044	0.024	1.9	1	0.95							nd 0.100	0.038				6.1	~0.320			~0.006	nd 0.010	1.6	1.1
Methylene Chloride	9.5		0.0019	0.012	0.15	nd 0.050	nd .050	12	12	15				1.8	1.5				0.51	nd 0.250	0.63	0.62			nd 0.500	0.057
Acetone					0.13	nd 0.100	nd 0.100	4.7	~0.980 B	nd 10.000	0.23	~0.190 B	1.7	~2.800 B	nd 0.050				~5.600 B	2.1	~11.000 B	12	~0.110 B	nd 0.010	~680 B	0.32
Carbon Disulfide								0.75	0.93	1.6																
1,1-DCE								0.26	0.31	nd 5.000											0.72	nd 0.250				
1,1-DCA			0.023	0.096	0.1	nd 0.050	~0.036	0.46	0.62	nd 5.000				nd 0.050	~0.018	0.016	~0.004		4.6	0.32	1.1	1.2	0.078	0.045	~0.330	0.16
1,2-DCE (total)			0.0048	0.021	1.1	0.16	0.1	3.9	~7.5	7.7	nd .050	~0.027	nd 0.100	0.068	0.17				3	0.63	2	3.2	0.05	0.051		
Chloroform	50		0.0011					54	~62	100				1.2	0.4						2.7	nd 0.250	~0.049	0.048		
1,2-DCA								nd 0.100	0.13	nd 5.000											10	nd 0.250			0.65	nd 0.050
2-Butanone								0.7	0.16	nd 10.000				0.21	0.17				1.7	nd 0.500	2.2	nd 0.500				
1,1,1-TCA			0.029		~0.16	nd .050	nd 0.050	2.5	1.8	~1.5											3.1	4.2	~0.008	0.015	~0.250	0.068
Carbon Tetrachloride								0.98	0.066	nd 5.000											0.82	nd 0.250				
1,2-Dichloropropane								~0.079	0.17	nd 5.000				nd .050	~0.012											
TCE			0.0032	0.028	0.057	0.28	nd 0.050	16	15	19				~0.026	nd 0.025						3.8	0.82	~0.017	0.007		
1,1,2-TCA								nd 0.100	0.075	nd 5.000																
Benzene					0.48	0.42	0.31	8.1	15	22	7	3.5	1.4	5.5	3.2	~0.003	~0.003		4.2	0.33	2.3	~0.220	~0.016	0.008	2.3	1.6
4-Methyl-2-Pentanone					~0.039	nd 0.100	nd 0.100				nd 0.100	nd .100	0.39	0.83	0.7				6.7	1	nd 1.000	~0.380			nd 1.000	0.2
PCE					nd 0.025	0.28	nd .050	0.44	0.54	nd 5.000											5	1.3				
Toluene	470				0.53	0.38	0.15	300	230	140	1.8	0.31	0.42	0.8	0.71				~13.000	1.6	18	18			6.6	5.3
Chlorobenzene																					3	nd 0.250				
Ethylbenzene					nd .025	~0.040	nd .050	0.3	0.44	nd 5.000				0.11	0.077				3.7	0.41					1.1	0.84
Styrene																									nd 0.50	0.056
Total Xylenes					nd .025	0.14	nd .050	2	2.7	2.8				0.073	0.047				2.9	~190	nd 0.500	~0.220			nd 0.500	0.91
Tetrahydrofuran					2.1	9.2	9.5				3	13	21	20	23	0.015	0.096	6	~22.000	22	~26.000	23	0.51	0.52	~34	31
Trichlorotrifluoroethane								4.2	nd 0.100	1.5									nd 1.000	~3.100	nd 1.000	9.1				
Total Detected VOCs (mg/l)	530		0.04	0.21	8	12	11	412	350	311	12	17	25	31	30	0.03	0.10	6	70	32	82	75	0.77	0.72	47	42
Detected SVOCs (mg/l)																										
Phenol					~0.023	~0.014	nd 0.100				~0.024	nd 0.100	nd 0.200												0.062	~0.067
Benzyl Alcohol								0.45	nd 1	nd 2																
1,2-Dichlorobenzene								nd 2	~0.150	nd 2																
2-Methylphenol					~0.046	~0.006	nd 0.100	~0.490	~0.220	nd 2	nd 0.076	nd 0.100	~0.089												~0.025	nd 0.100
4-Methylphenol					~0.014	~0.016	nd 0.100	nd 2	~0.520	nd 2	nd 0.076	~0.016	0.59	~0.360	nd 5				~0.064	~0.21	~0.150	nd 0.500			~0.045	~0.035
Isophorone																										
2,4-Dimethylphenol											~0.039	~0.020	nd 0.200						~0.053	nd 0.400	~0.100	nd 0.500			~0.046	~0.064
Benzoic Acid								~1.5	~2.1	nd 10									nd 0.25	~1.1						
Naphthalene											~0.055	~0.032	nd 0.200						~0.006	nd 0.400						
4-Chloro-3-Methylphenol																									nd 0.050	~0.03
2-Methylnaphthalene											~0.008	nd 0.100	nd 0.200													
2,6-Dinitrotoluene								nd 2	~0.210	nd 2																
Acenaphthene											~0.020	~0.010	nd 0.200													
Dibenzofuran											~0.010	nd 0.100	nd 0.200													
Fluorene											~0.056	nd 0.100	nd 0.200													
Phenanthrene											~0.013	nd 0.100	nd 0.200													
Bis(2-ethylhexyl)phthalate					nd 0.060	~0.033	nd 0.100																~0.001	nd 0.010		
Pyridine					~0.053	nd 0.250	nd 0.500	2.4	nd 5	6.5	~0.071	nd 0.500	1.3						~3.4	2.5	~33	21				
3-Picoline					2.7	~5.4	2.3	290	670	190	4.9	9.9	530	59	42			~0.660	~26	13	~360	92	~0.140	0.15	~67	68
1-Methyl-2-Pyrrolidinone					0.11	~0.18	0.18	12	1100	~74	0.2	~1.4	140	13	7.1			nd 0.040	23	19	~1100	200	~0.005	~0.007	~0.52	0.75
N,N-Dimethylacetamide					0.18	na	~0.043	850	na	1800	22	na	21000	na	2900	na	nd 0.010	na	na	11	na	53	na	nd 0.010	na	1.1
Acetophenone					na	na	na	na	na	~1.5	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Total Detected SVOCs (mg/l)					3	6	3	1157	1773	2072	27	11	21672	72	2949	nd	nd	0.66	53	47	1493	366	0.15	0.16	68	70

* metals analyzed for MW2 only in February, 1994 as part of Appendix I scan
B: Blank contamination detected in sample
na not analyzed
~: quantitation approximate



Figure 1: Site Location

NO.	REVISIONS	BY

LTI-Limno-Tech, Inc.
 Environmental Engineering
 2395 Warren Parkway, Ann Arbor, MI 48104

SAFETY-KLEEN CORP.
 Chicago Recycle Center

PROJECT NO.
 SKCH1
 FIGURE NO.

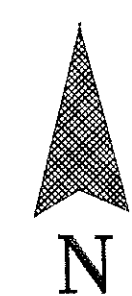
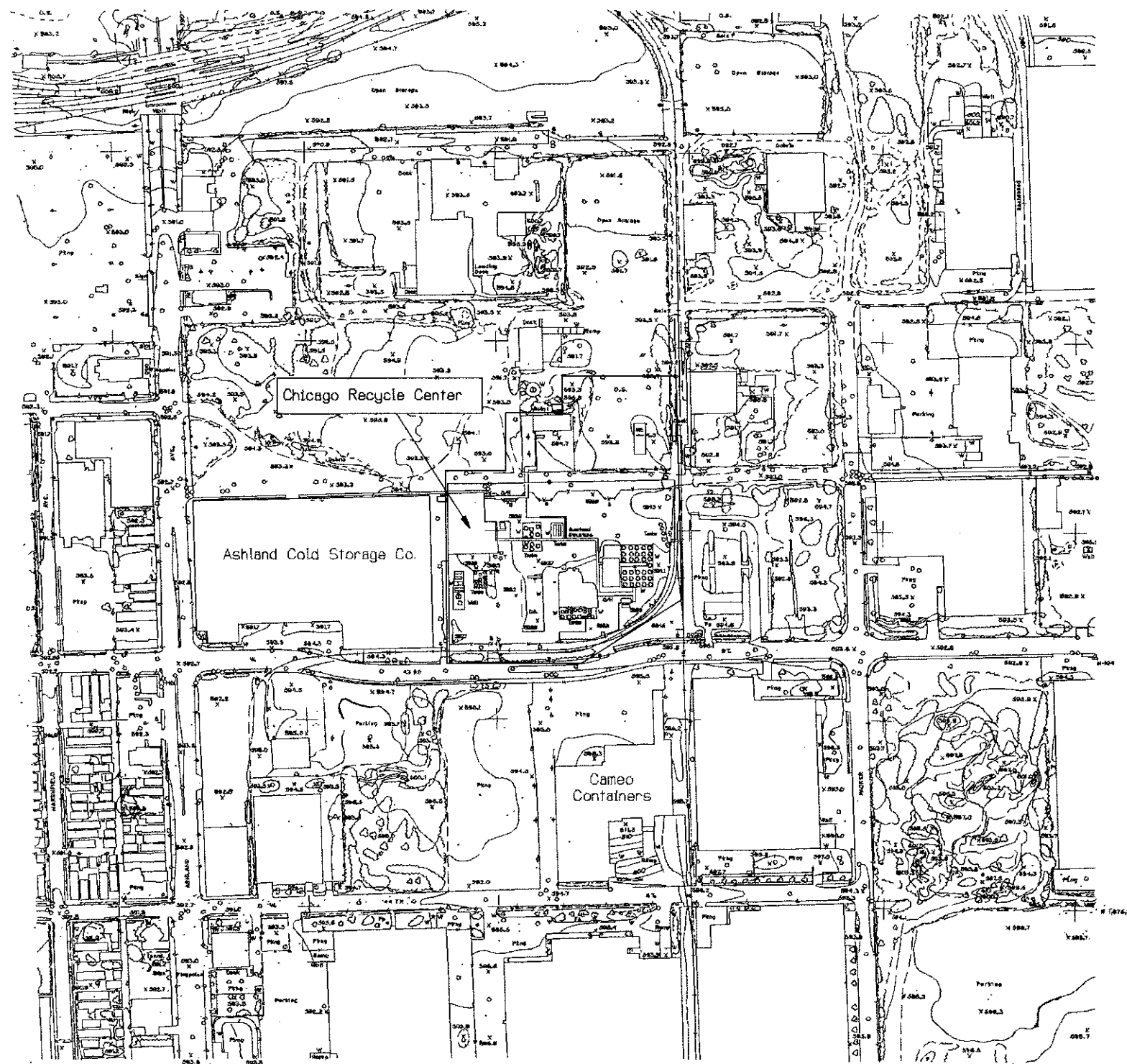
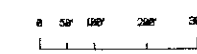


Figure 2:
Site Topographic Map
 Safety-Kleen Corp.: Chicago Recycle Center
 Cook County, Illinois
 (T38N,R14E, Section 5)

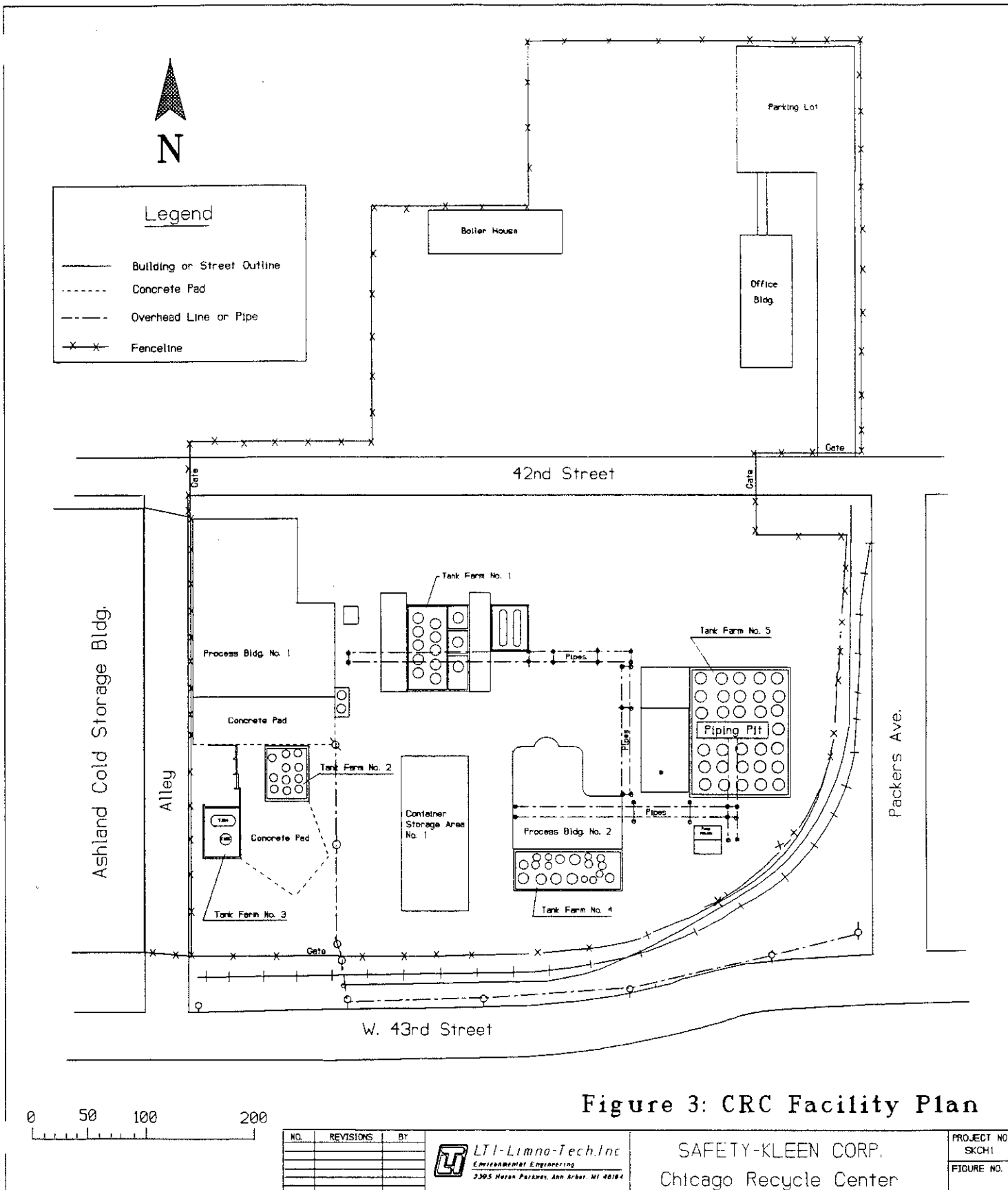


NO.	REVISIONS	BY
3	5/1/93	SBB

LTI-Limno-Tech, Inc.
 Environmental Engineering
 2395 Huron Parkway, Ann Arbor, MI 48104

SAFETY-KLEEN CORP.
 Chicago Recycle Center

PROJECT NO.
FIGURE NO.



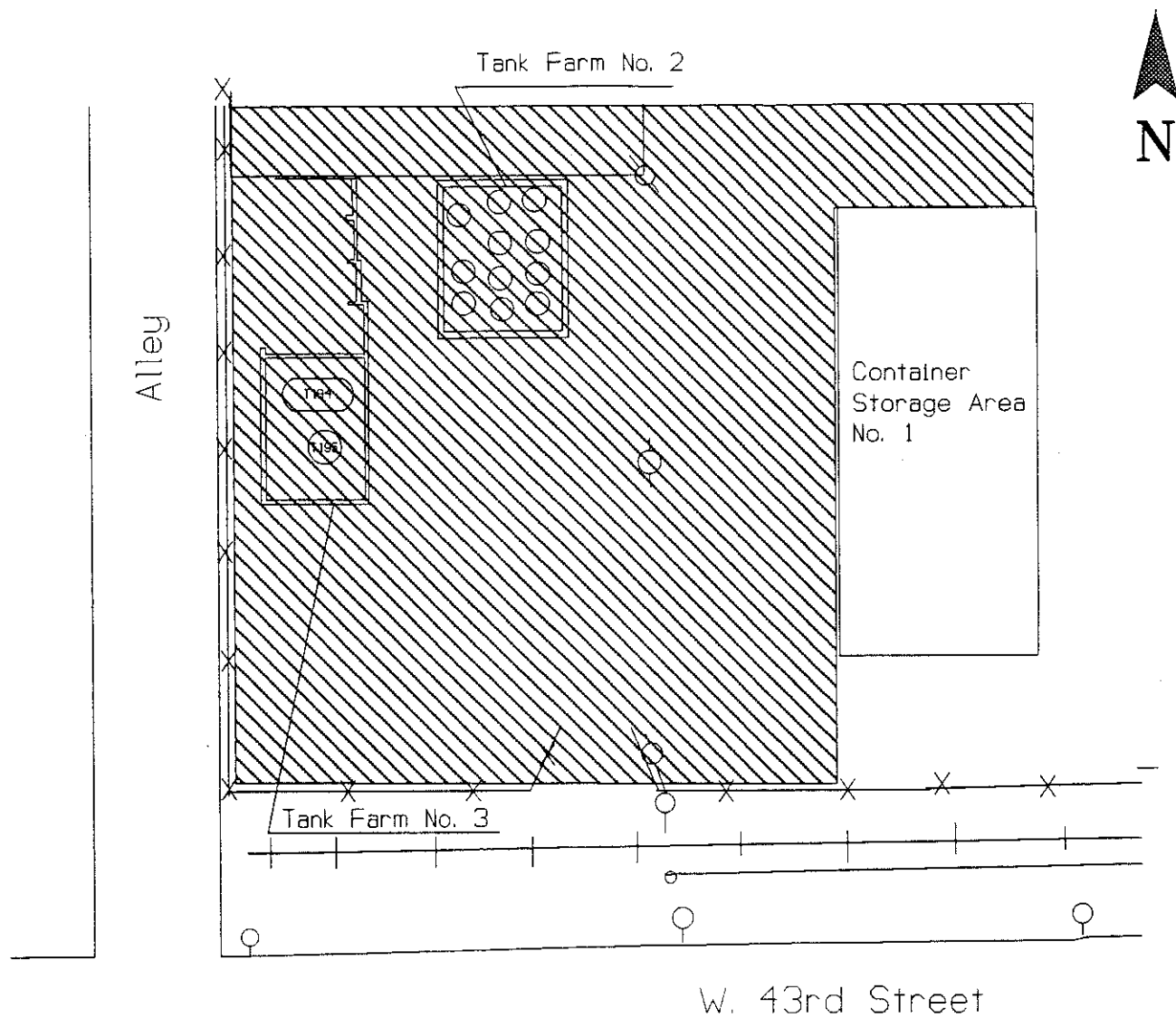
NO.	REVISIONS	BY



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 Environmental Engineering
 2305 Moran Parkway, Ann Arbor, MI 48104

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 Chicago Recycle Center

PROJECT NO.
SKCH1
 FIGURE NO.



Legend

- - - SWMU Investigation Area Boundary
- X-X- Property Fence
- + + + Railroad Tracks

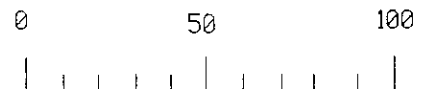


Figure 4: SWMU Investigation Area

NO.	REVISIONS	BY



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Environmental Engineering
2395 Huron Parkway, Ann Arbor, MI 48104

SAFETY-KLEEN CORP.
Chicago Recycle Center

PROJECT NO.
SKCH1
FIGURE NO.

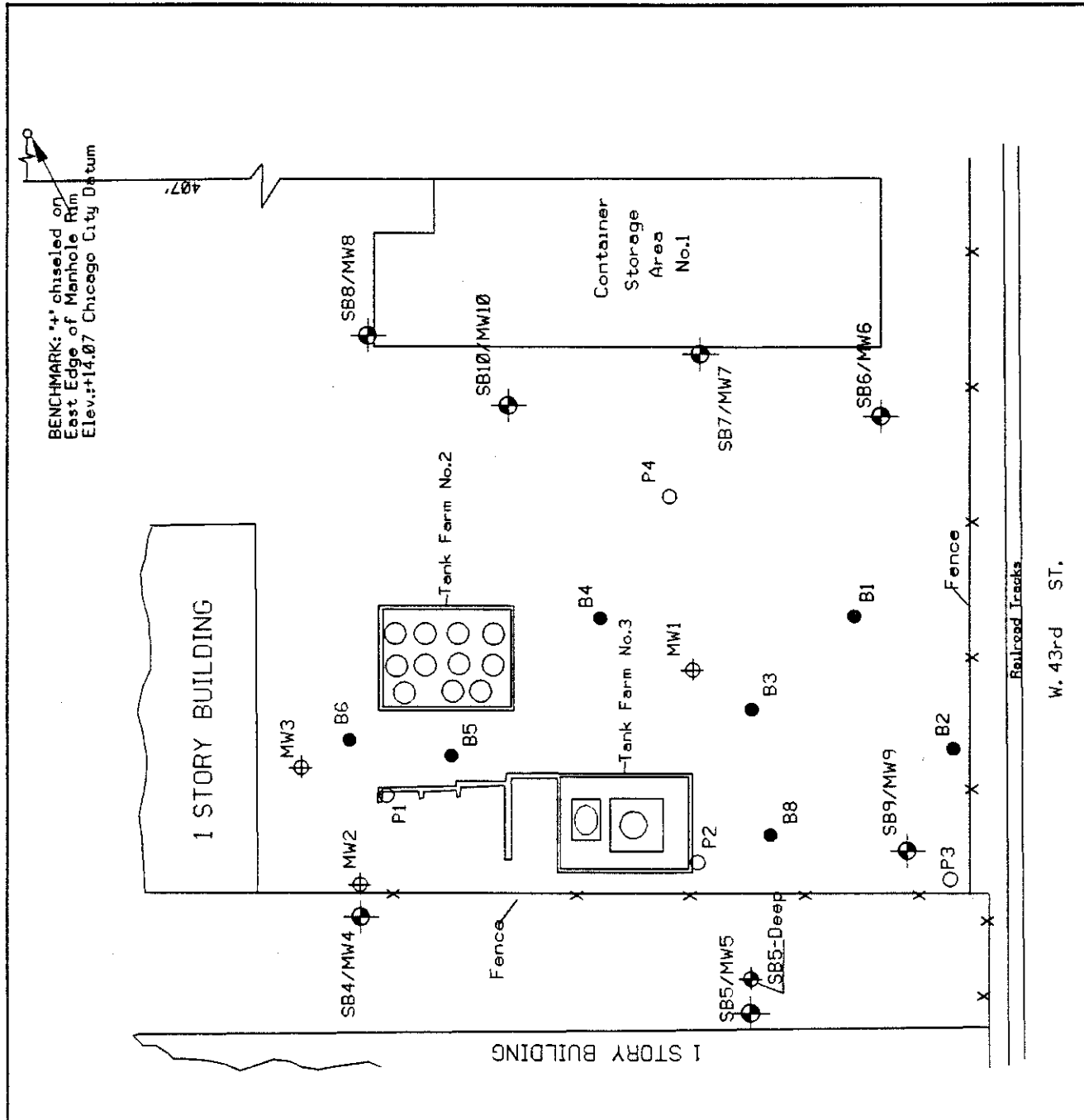
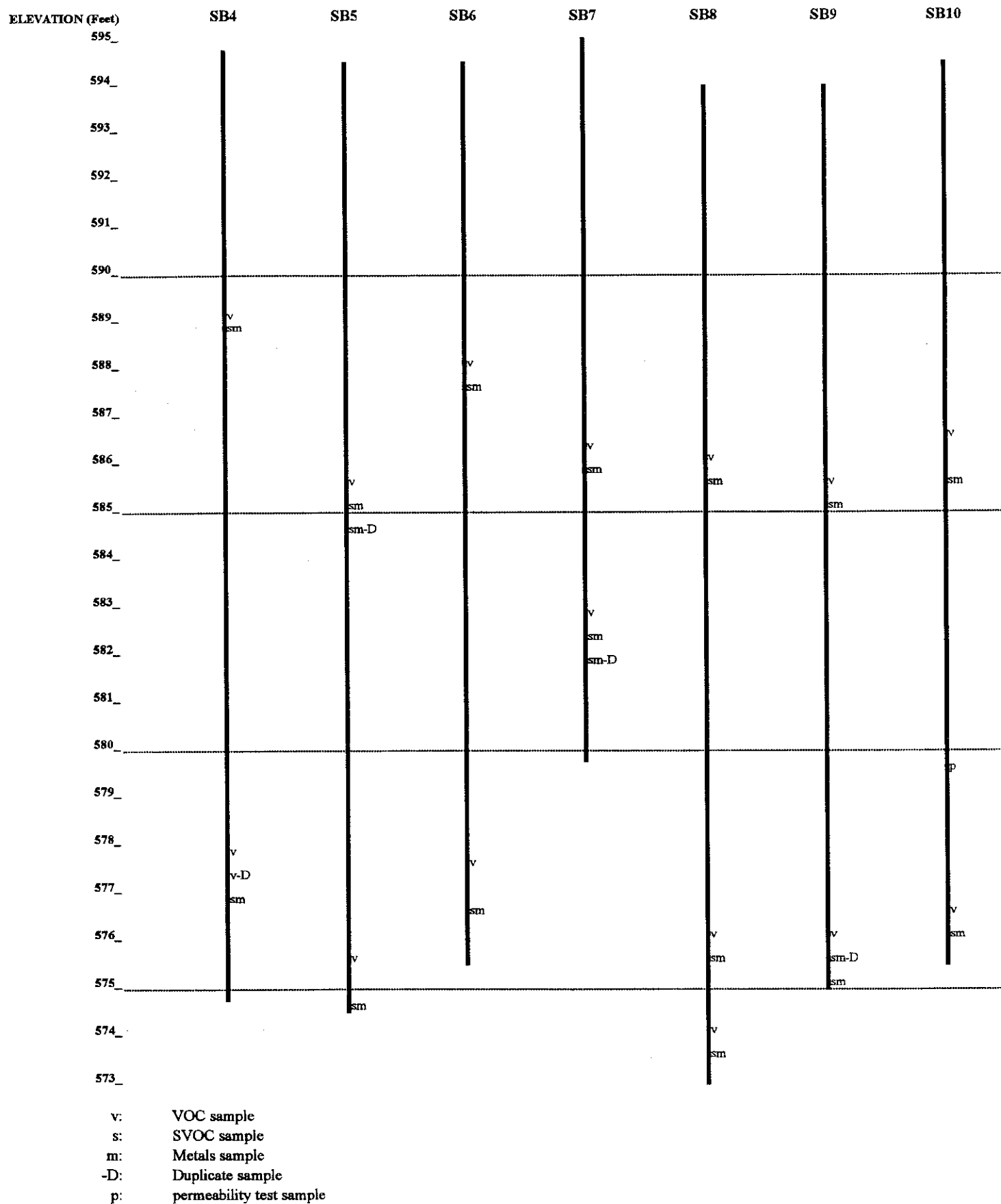
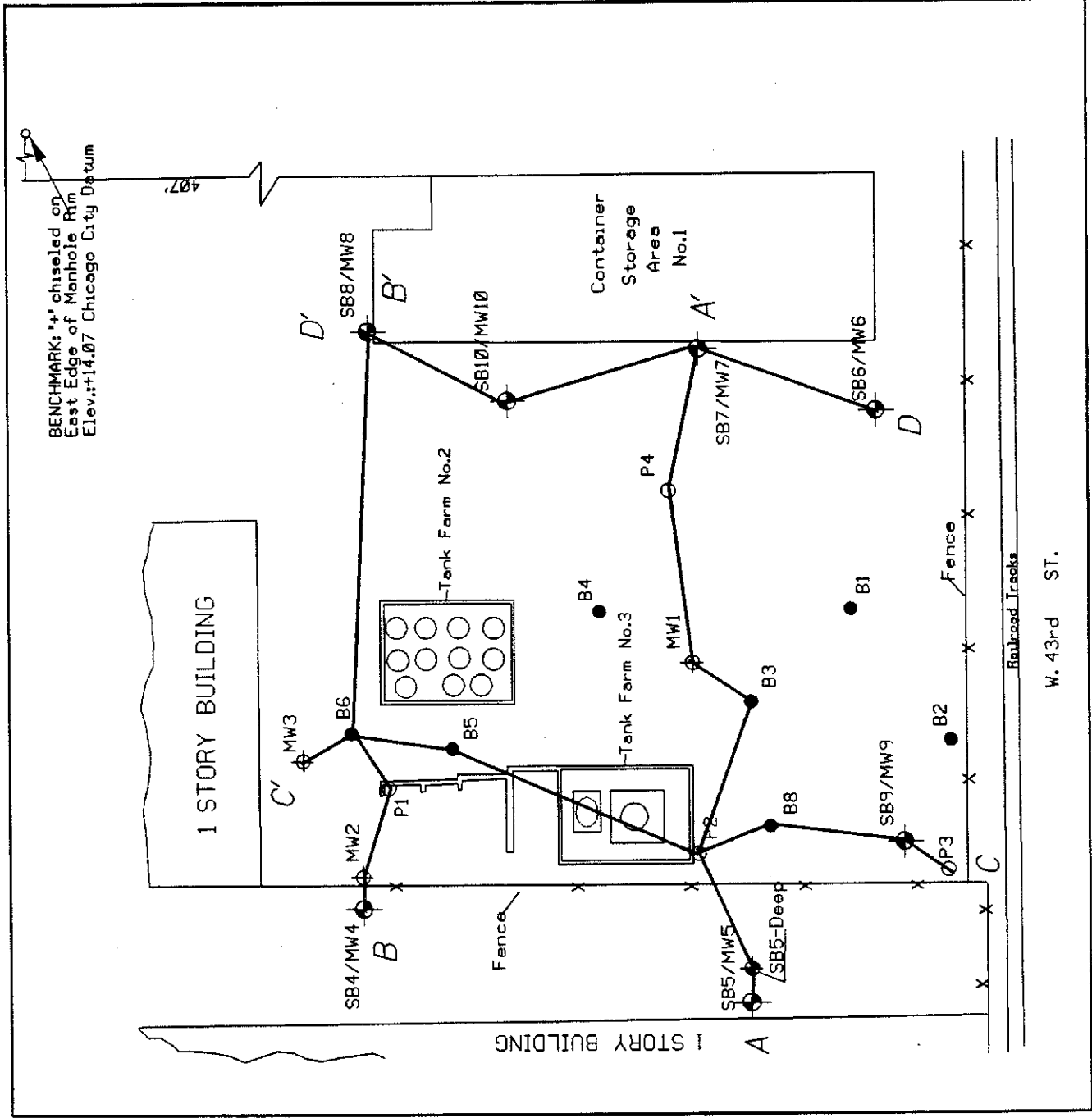


Figure 5
Soil Boring Monitoring Well
Location Map

Figure 6. Scaled Vertical Representation of December, 1993 Soil Sampling Locations.





LEGEND:

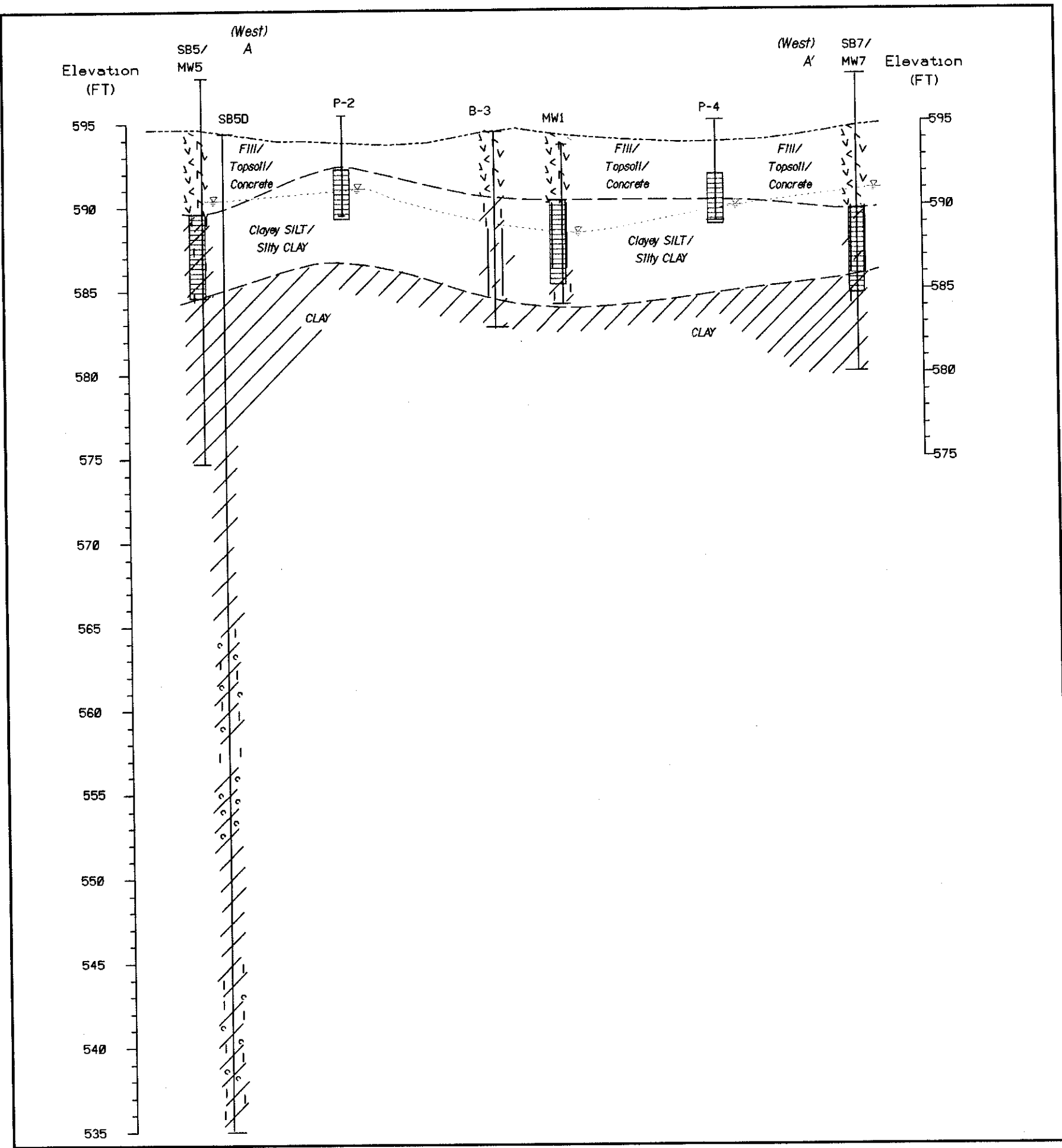
- ⊕ MW1-3 (Canonie, 1991)
- ⊕ SB4/MW4-SB10/MW10 (LTI, 1993)
- P1-3 (RMT, 1991)
- B-series (Canonie, 1991)

APPROXIMATE SCALE
0 60 FEET










SAFETY KLEEN SITE
Chicago Recycle Center

Figure 7
Plan View of
Geological Profiles






LEGEND:

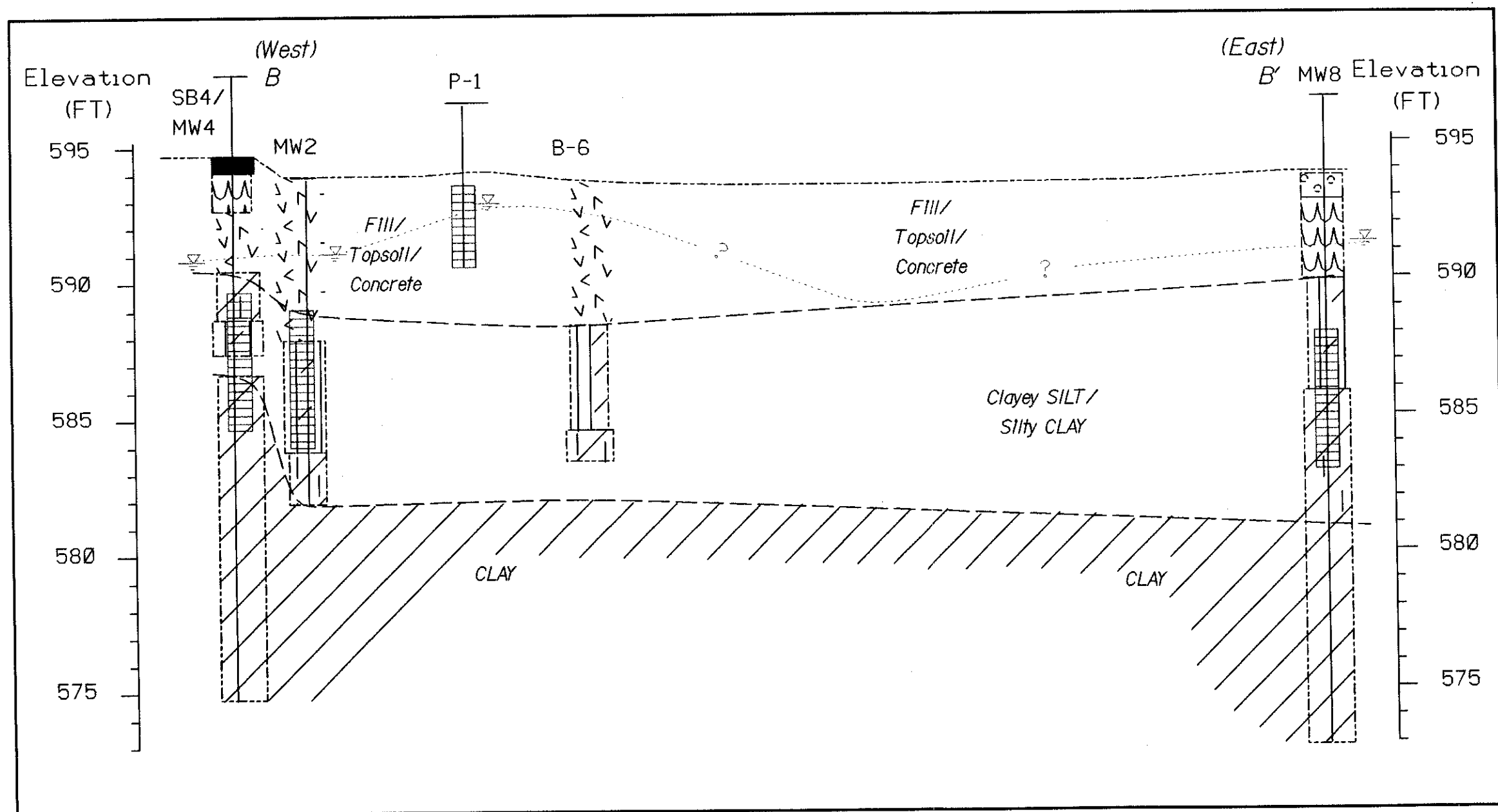
-  Clay
-  Silty Clay
-  Clayey Silt
-  Gravel
-  Fill
-  Topsoil
-  Well Screen
-  Silt
-  Static Level (12/16/93)

Vertical Exaggeration: 6:1

Safety Kleen
Chicago Recycle Center

Figure 8
A-A' Geological Profile

 LTI-Limno-Tech, Inc.
Environmental Engineering
2395 Huron Parkway, Ann Arbor, MI 48104



LEGEND:

- Clay
 - Silty Clay
 - Clayey Silt
 - Gravel
 - Fill
 - Topsoil
 - Well Screen
 - Asphalt
 - Silt
 - Static Level
(12/16/93)
- Vertical Exaggeration: 5:1

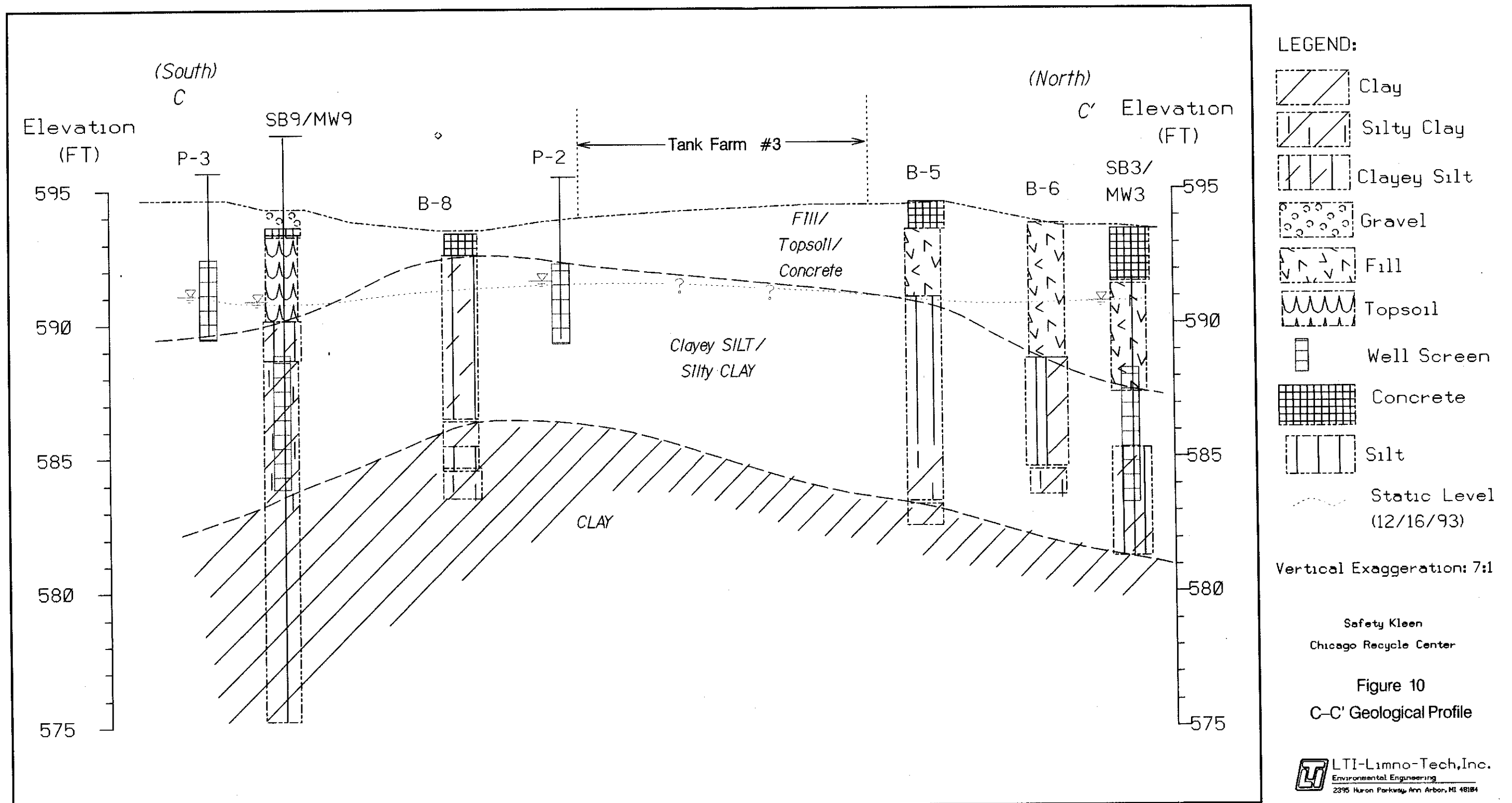
Safety Kleen
Chicago Recycle Center

Figure 9
B-B' Geological Profile

LTI-Limno-Tech, Inc.
Environmental Engineering
2395 Huron Parkway, Ann Arbor, MI 48104

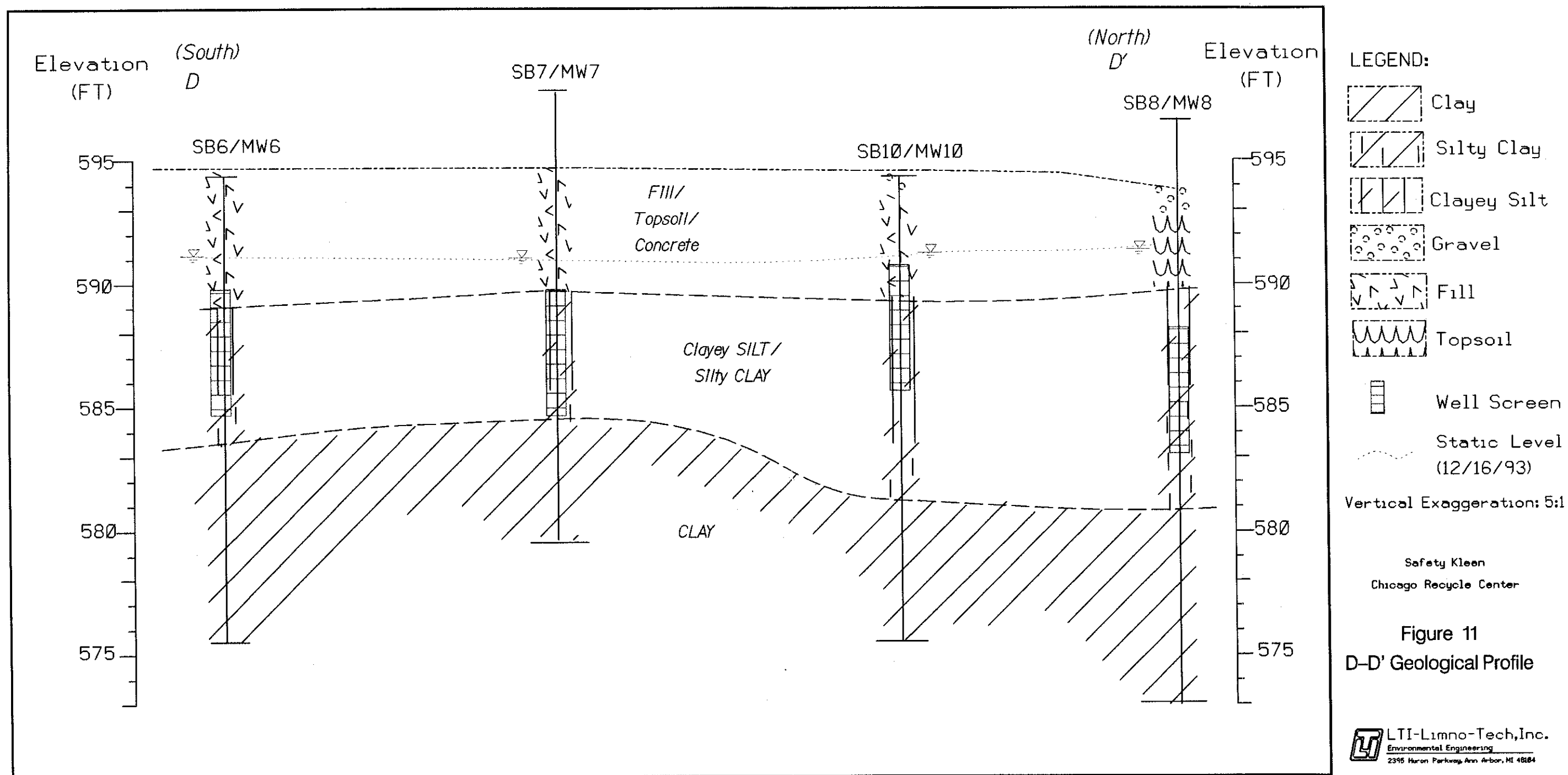
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REVISION DATE: 6/29/94



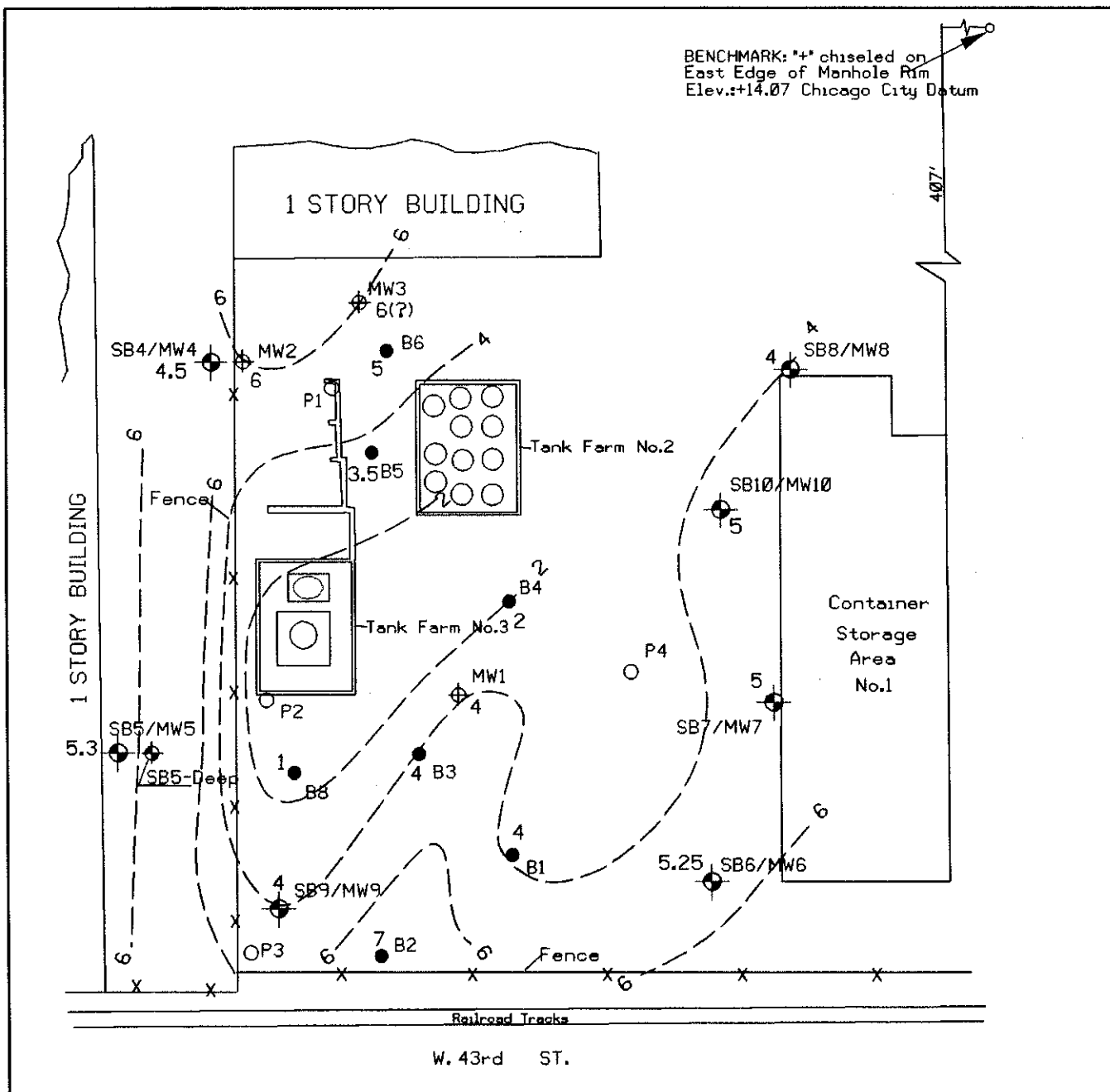
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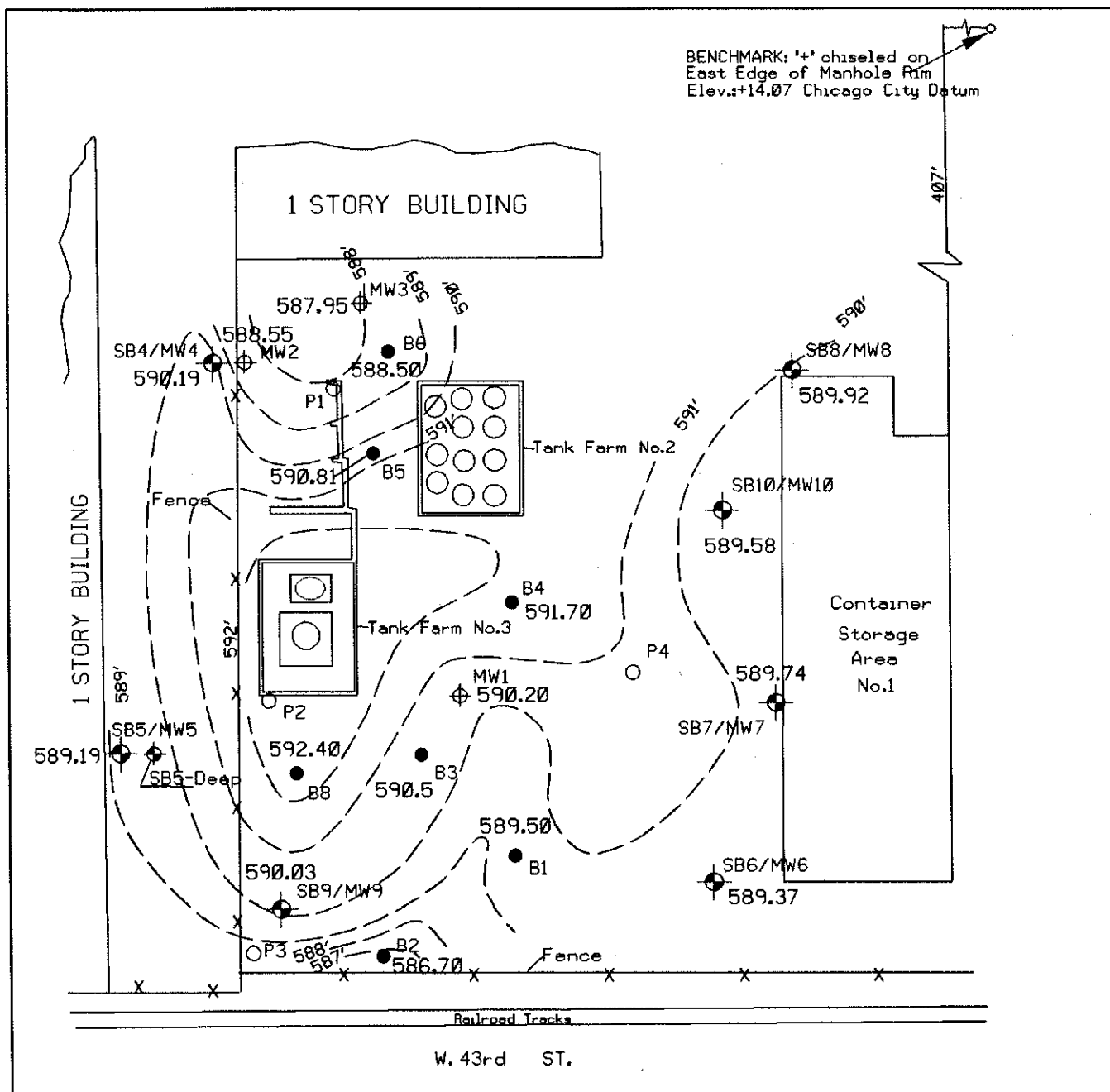
REVISION DATE: 6/29/94



FILENAME: \SKCH\LOGS\DD'.DGN

REVISION DATE: 6/29/94





BENCHMARK: '+' chiseled on
East Edge of Manhole Rim
Elev.: +14.07 Chicago City Datum



LEGEND:

⊕ MW1-3 (Canonie, 1991)

SB4/MW4-SB10/MW10
(LTI, 1993)

○ P1-3 (RMT, 1991)

- B-series (Canonie, 1991)

Elevations of B1-B8 surveyed 1991

Elevations of MW1-MW10 surveyed 1993

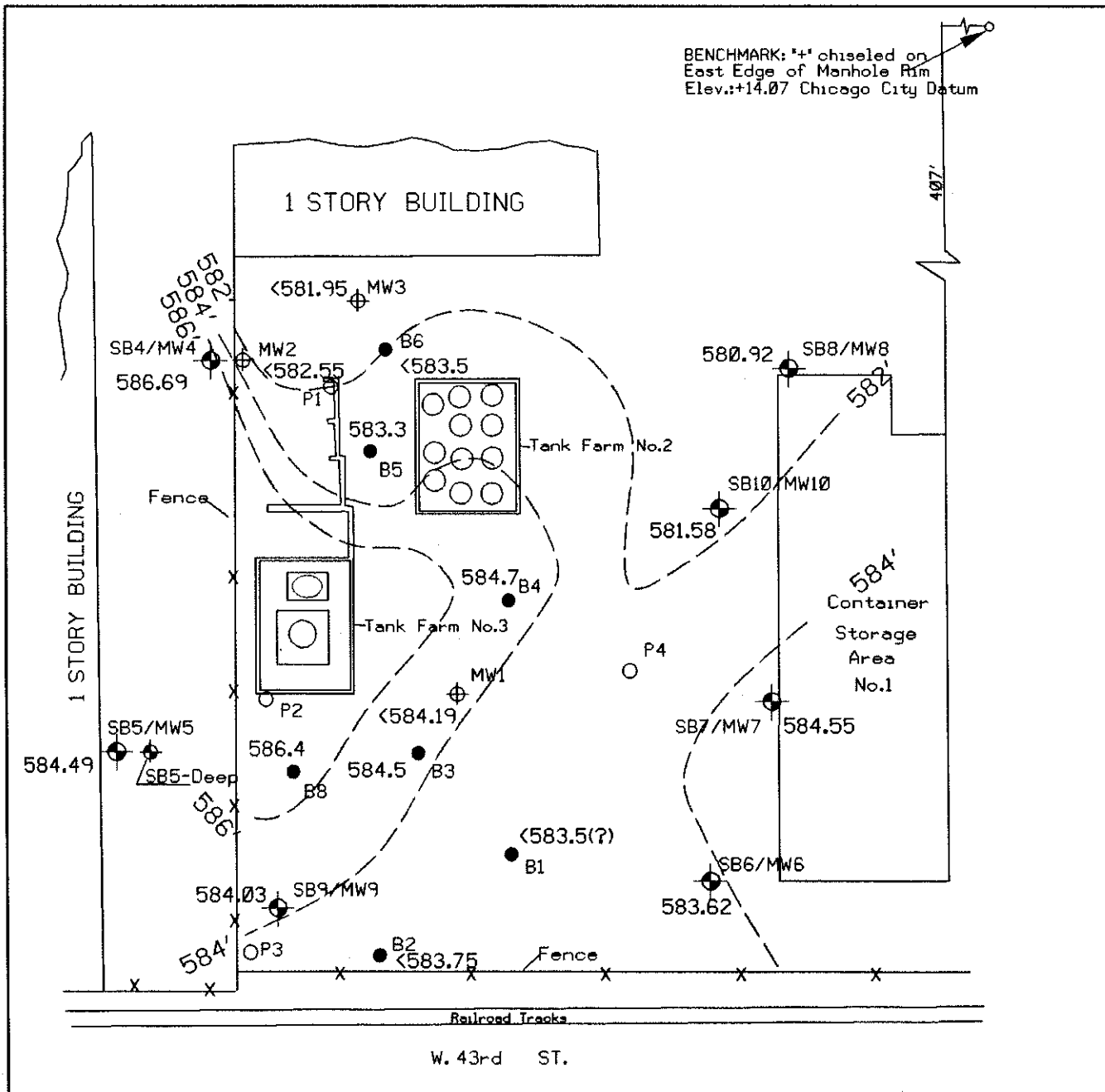
APPROXIMATE SCALE

0 60 FEET

SAFETY KLEEN SITE
Chicago Recycle Center

Figure 13
Elevation of
Top Clayey SILT/Silty CLAY Zone





LEGEND:

⊕ MW1-3 (Canonie, 1991)

⊕ SB4/MW4-SB10/MW10
(LTI, 1993)

○ P1-3 (RMT, 1991)

● B-series (Canonie, 1991)

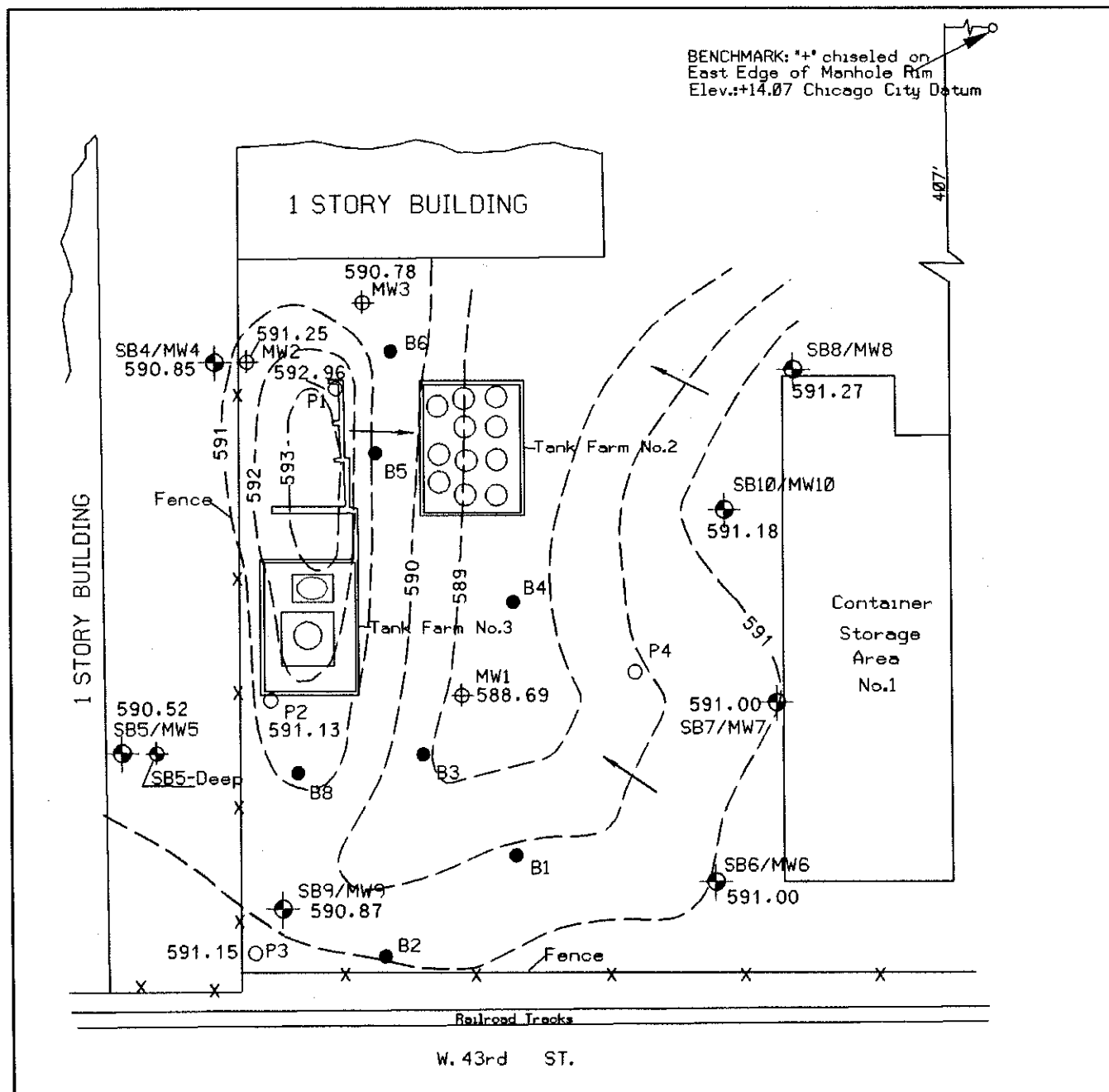
Elevations of B1-B8 surveyed 1991
Elevations of MW1-MW10 surveyed 1993

APPROXIMATE SCALE
0 60 FEET






SAFETY KLEEN SITE
Chicago Recycle Center

Figure 14
Approximate Elevation of
Top CLAY Layer/
Base Saturated Zone


LTI-Limno-Tech, Inc.
Environmental Engineering
2385 Huron Parkway, Ann Arbor, MI 48104



LEGEND:

-  MW1-3 (Canonie, 1991)
 SB4/MW4-SB10/MW10
 (LTI, 1993)
 P1-3 (RMT, 1991)
 B-series (Canonie, 1991)
 Direction of Groundwater Flow

APPROXIMATE SCALE



0 60 FEET

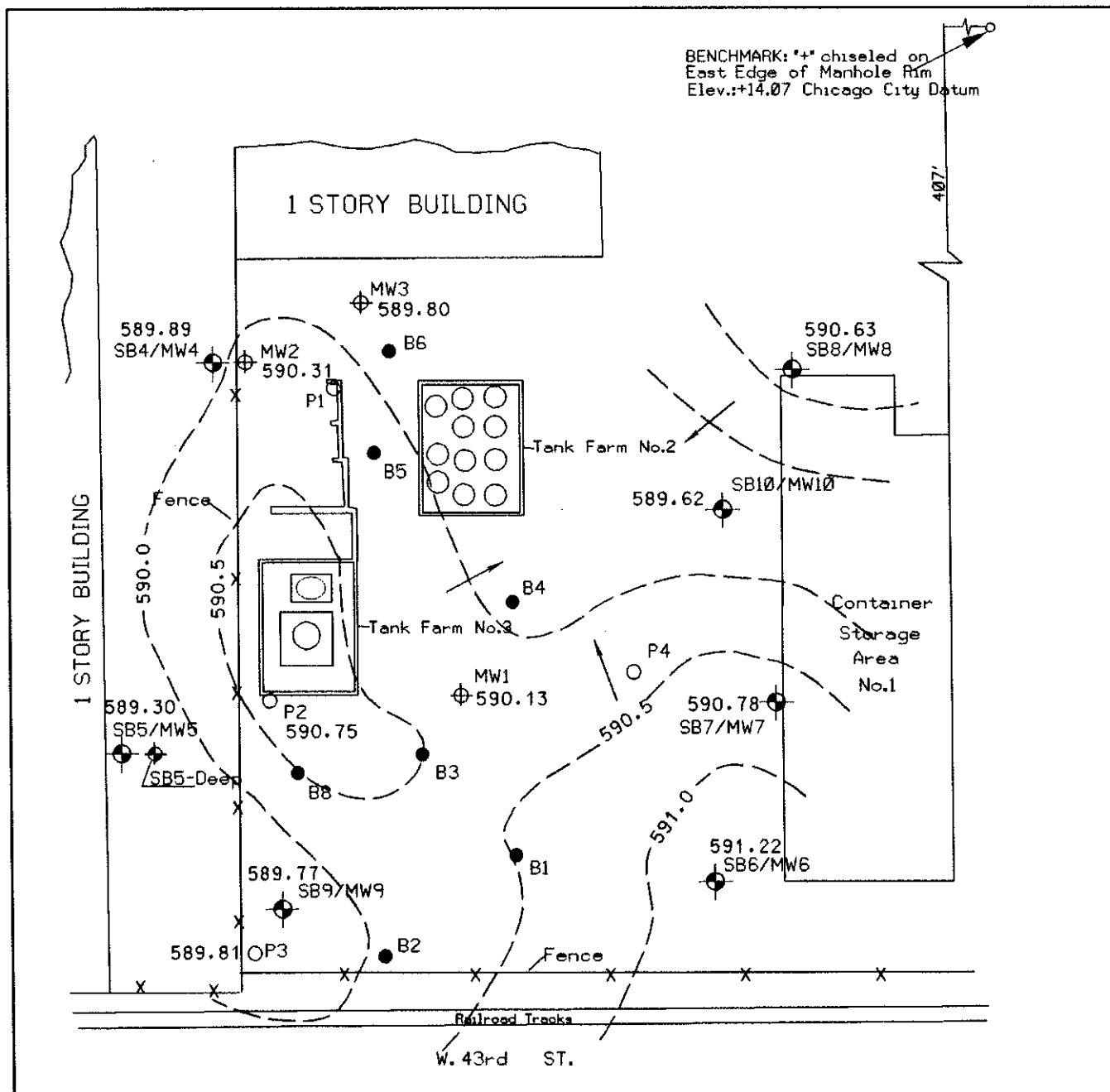
SAFETY KLEEN SITE
Chicago Recycle Center

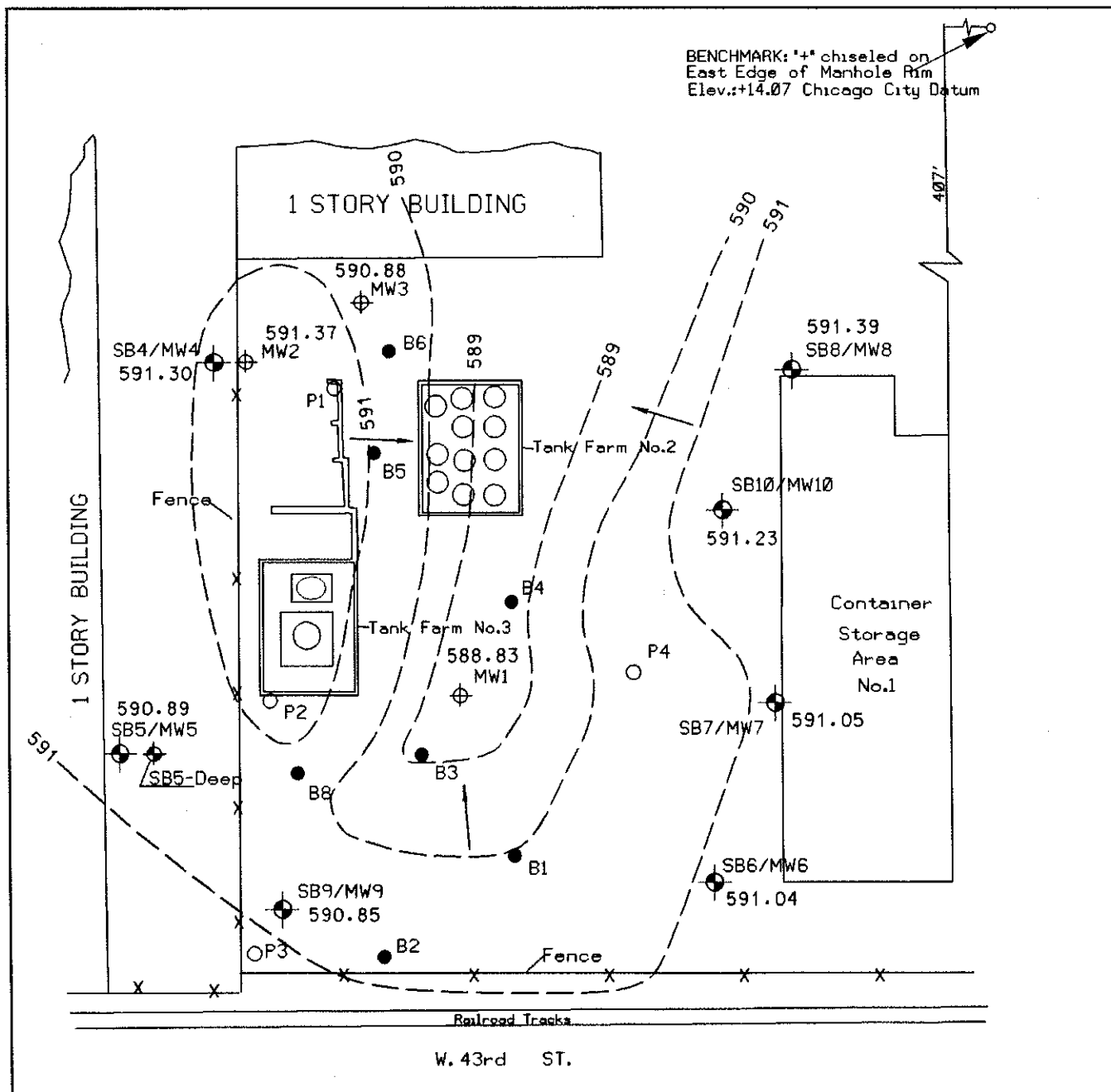
Figure 15

POTENTIOMETRIC SURFACE MAP

DEC. 16, 1993







LEGEND:

⊕ MW1-3 (Canonie, 1991)

⊕ SB4/MW4-SB10/MW10
(LTI, 1993)

○ P1-3 (RMT, 1991)

● B-series (Canonie, 1991)

→ Direction of Groundwater Flow

APPROXIMATE SCALE
0 60 FEET

SAFETY KLEEN SITE
Chicago Recycle Center

Figure 17
POTENTIOMETRIC SURFACE MAP
MAY 25, 1994

LTI-Ummo-Tech, Inc.
Environmental Engineering
2385 Huron Parkway, Ann Arbor, MI 48104

APPENDIX A:

SK-CRC RFI Phase I Personnel Qualifications

**Summary of Qualifications
for LTI Staff Assigned to the Safety-Kleen CRC Phase I RFI**

Name	Project Role	Degrees	Professional Experience (years)
Paul F. Freedman, P.E.	Project Administrator	B.S.E. Civil Engineering	20
		M.S.E. Environmental Engineering	
Gregory W. Peterson	Project Manager	B.S.E. Civil Engineering	9
		B.S.E. Environmental Engineering	
Scott B. Bell	Project Engineer	B.S. Environmental Studies	1
		M.S. Civil Engineering	
Robert J. Betz	Project Scientist	B.S. Biological Sciences	4
		M.S. Environmental Health Sciences	
Jing Chen	Assistant Hydrogeologist	B.S. Hydrogeology	7
		M.S. Environmental Studies	
Joyce Dunkin	Project Hydrogeologist	B.S. Mathematics	8
		M.S. Geology	
		M.S. Environmental Engineering	
Jonathan B. Farr	Assistant Geologist	B.S. Geology	1
		B.S. Computer Science	
Brian Lord	Environmental Technician	B.S. Industrial Hygiene	1
John T. Peterson	Environmental Technician	B.S. Biology	4
James Richards	Project Hydrogeologist	B.S. Geologic Engineering	8
		M.S. Environmental Engineering	
		c.Ph.D. Geology/Environmental Engineering	
Catherine Whiting	Project Engineer	B.S. Biology	9
		M.S. Civil Engineering	



JOHN D. REEBIK & Associates
LAND AND CONSTRUCTION SURVEYS
35W388 MILLER ROAD
DUNDEE, ILLINOIS 60118 (708) 428-3456

June 16, 1994

JUN 20 1994

Ms. Joyce Duncan
LIMNO-TECH INC.
2395 Huron Parkway
Ann Arbor, Michigan 48104

Dear Ms. Duncan:

Our firm has been in business since 1967. We our licensed in Illinois and Wisconsin. Our Surveying expertise includes:

- 1) Boundary, Topographical and Architectural Surveys
- 2) Baselines and Benchmarks
- 3) A.L.T.A./A.C.S.M. Land Title Surveys
- 4) Condominium Surveys
- 5) Subdivisions (Residential and Commercial)
- 6) Aerial Survey Control
- 7) Wetland Delineation
- 8) Mass Earthwork and Utility Staking
- 9) Land Planning
- 10) As-Built Locations and Elevations of Monitoring Wells

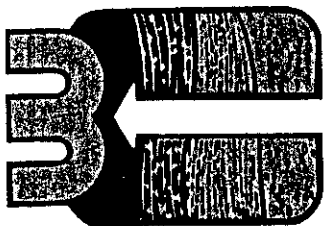
If our firm can be of any further assistance, please do not hesitate to call.

Sincerely Yours

John D. Reebik, P.L.S.

JDR/dh

JUN 14 1994



MATEGO DRILLING CO.

693 PLYMOUTH AVENUE, N.E. • GRAND RAPIDS, MICHIGAN 49505 • PHONE: 616/459-1090

QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

PROFESSIONAL QUALIFICATIONS

Mateco Drilling Company, a legitimate woman owned small business, originated as a corporation in the State of Michigan in 1974. Prior to 1974, Mateco Drilling Company was a drilling department within our affiliate geotechnical engineering firm, Materials Testing Consultants, Inc. We are located at 693 Plymouth Avenue, NE in Grand Rapids, Michigan. All of our projects are handled from this office.

Mateco Drilling Company holds woman owned business certificates from the State of Michigan and the City of Kansas City, Missouri. Professional organization representation includes the National Drillers Contractors Association, National Groundwater Association, Michigan Petroleum Association and the Michigan Environmental Consultants and Contractors Association.

Since 1974, Mateco Drilling Company has performed a wide range of geotechnical and environmental drilling projects including specialized in-situ soil testing, monitoring well installation and recovery well installation. These types of projects are performed in the States of Michigan, Indiana, Ohio, Illinois, Wisconsin, Missouri and New York.

Major contracts have included test drilling and monitoring well installation for the Corps of Engineers Detroit District 1984, 1985, 1986, 1987, 1988 and 1989 blanket contracts. Mateco Drilling Company was approved to work on U.S. EPA Superfund sites in 1983 and since has successfully completed work at many sites.

At present Mateco Drilling Company employs nine crew chiefs, ten driller's assistants, one welder and six administrative people for a total of 26 employees.

DRILLING EQUIPMENT

<u>Model</u>	<u>Year</u>
CME 45C trailer-mounted skid	1990
CME 45C trailer-mounted skid	1993
*CME 75 HT tandem axle truck-mounted	1987
*CME 55 HT truck-mounted	1991
*CME 750 HT all-terrain rubber-tired	1989
*CME 750 HT all-terrain rubber-tired	1992
CME 850 All-terrain track drill	1985
CME 850 All-terrain track drill	1987
*CME 850 HT All-terrain track drill	1993
General 550 drill rig trailer-mounted	1992

*HT - refers to high-torque

Mateco Drilling Company operates ten drilling machines. This includes two CME 45 trailer mounted skid drills, one General 550 portable machine, one CME 55 high torque truck mounted machine, two CME 750 high torque all terrain rubber tired machines, one CME 75 high torque truck mounted machine and three CME 850 track machines.

The high torque refers to the machine being modified by Central Mine Equipment Company (CME), the manufacturer, increasing the torque over and above the standard model drills. This gives us the capability to run larger diameter augers to greater depths.

All of our machines are equipped with the patented CME safety brakes, 140 lb. automatic hammers, hydraulic rod holder and breakout wrenches, Moyno grout pumps, heavy duty winch lines, wireline winch lines and quick connect spindle adaptor assemblies.

The quick connect spindle adaptor assembly allows us to change from hollow stem auger drilling to rotary drilling without lengthy drill chuck and kelly switchovers.

The CME 45 skid drills are specially designed with a quick mast disconnect to separate the tower in half for drilling in limited overhead clearance. This drill will allow us to operate with clearance as low as 12 feet.

The General 550 drill rig will allow us to drill in areas of 8 feet of overhead clearance.

The CME 45, CME 850 and CME 750 are also set up for angle hole drilling.

Mateco Drilling Company has provided drilling services to a wide variety of clients under many special drilling requirements. This has been accomplished by our specialized drilling equipment and supplies. The purchase of this vast inventory enables the equipment to be matched to the particular type of drilling condition. The following is a list of equipment owned by Mateco Drilling Company that is available for use on projects.

<u>Quantity</u>	<u>Equipment Description</u>
300 ft	6 Inch Flush Joint Casing
440 ft	4 Inch Flush Joint Casing
400 ft	3 Inch Flush Joint Casing
300 ft	4 1/4" I.D. Extra Heavy Duty Auger
400 ft	4 1/4" I.D. Hollow Stem Auger
200 ft	3 1/4" I.D. Hollow Stem Auger
300 ft	3 3/4" I.D. Hollow Stem Auger
200 ft	2 3/4" I.D. Hollow Stem Auger
100 ft	6 1/4" I.D. Hollow Stem Auger
100 ft	8 1/4" I.D. Hollow Stem Auger
60 ft	10 1/4" I.D. Hollow Stem Auger

<u>Quantity</u>	<u>Equipment Description</u>
50 ft	12 1/4" I.D. Hollow Stem Auger
500 ft	NQ Wireline Drill Rod
500 ft	HQ Wireline Drill Rod
3	5' NX Core Barrel - Longyear
1	10' NX Core Barrel - Christensen
1	Dutch Cone Penetrometer with 20 Meter Rod
2	Piston Sampling Heads for 3" Thin Wall Tube Samples
1	Piston Sampling Head for 5" Thin Wall Tube Samples
4	CME Continuous Sampling Systems (3 1/2" O.D. X 3" I.D., 6" O.D. X 5 1/2" I.D., and 3" O.D. X 2 1/2" I.D.)
100 ft	4" Solid Stem Auger
40 ft	7" Solid Stem Auger
2	4" HW Christensen Casing Advancers
2	3" NW Longyear Casing Advancers
10	Steam Cleaners and Decontamination Equipment
200 ft	NW Rod
1000 ft	AW Rod
5	3L6 Moyno Pumps
2	3L8 Moyno Pumps
4	John Bean Pumps
4	Shallow Well Development Pumps
39	2" to 8" Rotary Drilling Bits
10	Water Tanks
2	1,500 Gallon Site Water Tanks
9	4 Wheel 1-Ton Trucks
1	1993 Ford F-800 20' Stake Body Truck
8	Ditch Pumps
2	Borehole Packer Testing Equipment
2	Borehole Double Packer Testing Equipment
1	with Deep Rock Pump Capability
2	Ford Aeromax LNT9000 Tractor, with
1	Detachable Gooseneck Trailer
2	Chem Grout Well Grouter
2	Bosch Jackhammers
2	MP-1 Grundfos Pumps with Packers
4	4 1/4" I.D. Screened Augers
2	Hydropunch II Groundwater Samplers

<u>Quantity</u>	<u>Equipment Description</u>
1	Level B Cascade Systems
2	Down Hole Rock Hammers
2	Vane Shear Testing Equipment
1	Menard Pressure Meter
1	PID Meter
1	John Deere 450B Bulldozer
1	Semi Storage Trailer

Mateco Drilling Company also has full and half mask respirators with cartridges along with various dermal and other personal safety protection available.

DRILLING METHODS

Auger Drilling

Mateco Drilling Company provides a wide range of drilling methods. They include auger drilling in 2 1/4 inch I.D., 3 1/4 inch I.D., 3 3/4 inch I.D., 4 1/4 inch I.D., 6 1/4 inch I.D., 8 1/4 inch I.D., 10 1/4 inch I.D. and 12 1/4 inch I.D. hollow stem augering methods. Within the hollow stem auger Mateco Drilling Company can provide soil sampling using 2 inch O.D. splitspoons, 3 inch O.D. splitspoons, 3 1/2 inch O.D. splitspoons in standard steel or stainless steel material. Brass, plastic or stainless steel liners are often used within the splitspoon sampler. The splitspoons are used in accordance with ASTM and EM procedures.

Soil samples can also be collected through the use of our CME continuous soil samplers. These samplers are available for the use in the 3 1/4 inch I.D., 3 3/4 inch I.D., 4 1/4 inch I.D. 6 1/4 inch I.D. hollow stem augers. This system is very effective in providing continuous soil samples to define or locate thin sand lenses and provide relatively undisturbed samples of very hard clays for geotechnical laboratory testing.

Depth capacity in auger drilling varies depending on soil types, groundwater and auger size. Mateco Drilling Company has drilled to 200 feet with 4 1/4 inch I.D. extra heavy-duty hollow stem augers, 100 feet with 10 1/4 inch I.D. hollow stem augers and 50 feet with 12 1/4 inch I.D. hollow stem augers. Our other sized augers have been to beyond 100 feet and no greater than 200 feet.

Mud Rotary and Air Rotary

Mateco Drilling Company provides mud and air rotary drilling in hole sizes ranging from 2 inch diameter to 12 inch diameter. Again, soil samples are provided through the use of splitspoon soil samplers or continuously through our Longyear geo-barrel.

This mud rotary drilling and sampling method allows us to drill and continuously sample up to very hard soils beyond the depth capacity of hollow stem augers.

Mateco Drilling Company has drilled 6 inch mud rotary holes to 250 feet and has drilled to 300 feet with the Longyear geo-barrel. Our depth capacity with hole sizes larger than 6 inches in diameter and up to 12 inches in diameter is 200 feet.

Rock Coring and Rock Drilling

Mateco Drilling Company has extensive capabilities and experience in rock coring and rock drilling.

Wireline rock coring is provided in HQ size (4 inch hole) and NQ size (3 inch hole) tooling. Our HQ and NQ wireline systems are set up with optional inner stainless steel splits that can be pumped out for visual core classification. These systems also have dual inner packers which indicate when there is core blockage in the inner barrel and notifies the operator due to increase in fluid pressure. This allows the operator to reset the core barrel and not grind or loose rock sample recovery.

Mateco Drilling Company provides HW (4 inch I.D.) and NW (3 inch I.D.) casing advancers to extend temporary flush threaded steel casing into bedrock or boulders to seal off unstable sidewall conditions or contamination. We have used the HW casing advancer extensively on the Soo Locks located in Sault Saint Marie, Michigan for the U.S. Army Corps of Engineers. This project required us to drill 50 feet through stockpiled boulders to the top of bedrock to obtain core samples of the underlying bedrock.

Standard rock drilling is performed using air rotary or fluid rotary drilling methods. Our down hole hammers are very efficient in advancing a hole in bedrock using air as a fluid medium. Fluid rotary is used in conjunction with our rock roller bits.

Mateco Drilling Company's depth capacity in rock drilling is 500 feet in 3 inch to 6 inch hole size. Our depth capacity in bedrock larger than 6 inch and smaller than 12 inch is 200 feet.

In-Situ Testing

Through the use of specialized down hole equipment Mateco Drilling Company provides special down hole testing for geotechnical and environmental applications.

Our dual packer assemblies are used for pump-in permeability testing in bedrock and soils. This in-situ test gives an indication of the materials in-situ permeability.

Vane shear tests are performed by Mateco Drilling Company to give an indication of in-place shear strengths of soft cohesive materials and sludges. Mateco Drilling Company has used this device extensively in determining in-place strength parameters of paper sludges in an effort to determine if the material would remain in-place during remedial capping operations.

Dutch cone penetrometer testing is performed by Mateco Drilling Company to better define areas of soft or unstable soils or sludges where further drilling of boreholes would be expensive. The cone penetrometer gives continuous strength readings of the material being tested.

Vertical Water Sampling

Vertical groundwater sampling is performed by various methods by Mateco Drilling Company. Our capabilities include screened auger, dual packer in bedrock, hydropunch II and temporary well methods. We have used each method extensively with various drilling methods.

Our depth capacity for vertical water sampling in soils is 200 feet and 500 feet in bedrock.

Well Installations

Mateco Drilling Company is well qualified for the installation of monitoring wells. Wells have been installed in sizes ranging from 1 inch diameter to 12 inch diameter on private industry sites and large Superfund sites. The extreme care in handling and placement of well material is exercised by all of Mateco Drilling Company crew members. Proper well annulus sand packing and grout placement is performed by crews knowledgeable of calculating volumes and determining consistency in the material used. Proper well head completion is performed flush with grade or above grade.

Mateco Drilling Company is experienced in well development using surge blocks, 2 inch to 4 inch submersible pumps, air lift, hand pumping and bailing.

Decontamination

Mateco Drilling Company operates ten (10) steam cleaning units with an onsite power supply through the use of portable generators. Portable decontamination pads are provided for the containment of fluids if required.

SUMMARY OF PROJECTS

1. **Wurthsmith Air Force Base:** (3602-92) October, November, December 1992

Client: ICF Technology, **Client Contact:** Mr. Doug Laymon

Dollar Value: \$66,564.40

Mateco Drilling Company mobilized a CME high torque 750 all terrain rubber tired drill rig to this site. Vertical water sampling was performed using temporary well methods to 100 feet. Monitoring wells consisting of 4 inch diameter stainless steel screens and 4 inch galvanized riser were installed.

The level of personal protection was Level D and Level C. The decontamination of equipment was required with the collection of fluids and drill cuttings.

2. **Sand Lake, Michigan:** (3603-93) November, December 1992 and January 1993

Client: ABB Environmental Services, Inc., **Client Contact:** Mr. Michael O'Hearn

Dollar Value: \$68,041.77

Mateco Drilling Company mobilized two of our truck mounted drilling rigs to this site. The work included vertical groundwater sampling with a hydropunch II, screened auger and temporary well methods to depths of 100 feet. Soil sampling was performed with splitspoon soil samplers to depths of 140 feet using hollow stem auger and rotary drilling methods. Monitoring wells consisting of 2 inch diameter well materials were installed to depths of 100 feet. The level of personal protection was Level D. The decontamination of equipment was required along with the collection of all fluids and drill cuttings.

3. **Port Clinton, Ohio:** (3621-92) November 1992

Client: McLaren Hart, **Client Contact:** Mr. Garry Stevenson,

Dollar Value: \$16,319.25

Mateco Drilling Company mobilized a CME high torque 750 all-terrain, rubber tired drill rig to this site along with a CME 45C trailer mounted skid drill rig for low overhead clearance work. The drilling consisted of soil sampling continuously with the CME continuous soil sampler to locate thin layers of wet sand in determining monitoring well screen placement. The level of personal protection was Level D. The decontamination of equipment was required.

4. **Electro Voice Facility:** (3625-92) November, December 1992

Client: SAIC, **Client Contact:** Mr. John C. Morrison, **Dollar Value:** \$31,667.50

This project involved over 100 shallow soil borings in a research project with the U.S. EPA. Continuous soil sampling was performed using stainless steel splitspoons and extensive decontamination procedures. The level of personal protection was Level D and Level C.

5. **Dura Plating:**(3629-92) December, January, March, April and May 1993

Client: ABB Environmental Services, Inc., **Client Contact:** Mr. Michael O'Hearn

Dollar Value: \$40,000.00

This project involved outside borings performing vertical water sampling with a screened auger and inside low overhead clearance borings with split spoon soil sampling. Monitoring wells were installed consisting of 2 inch diameter wells completed in traffic areas and residential areas. The level of personal protection was Level D and Level C.

6. **Motorwheel Disposal Facility:** (3654-92) January, February, March, April, May, June and July 1993.

Client: Fishbeck, Thompson, Carr & Huber, **Client Contact:** Mr. Ken Wiley

Dollar Value: \$242,327.50

Mateco Drilling Company mobilized three drill rigs to this site. Two ATV drill rigs were mobilized to gain access to soft wet areas where drilling of soil borings using the CME continuous soil sampler was required to define soils for slurry wall construction. Vane shear testing was also performed. Vertical water sampling was performed using temporary well methods. Wireline rock coring was performed to depths of 150 feet. Monitoring wells consisting of 2 inch galvanized riser were installed to depths of 110 feet.

In 1992 Mateco Drilling Company was also on this site drilling to depths of 300 feet using HQ wire line coring and performing pump-in and pump-out testing in the regional bedrock aquifer.

The level of protection was Level D through Level B. The decontamination of equipment was required.

7. **United Technologies:** (3665-93) February, March 1993

Client: ABB Environmental Services, Inc., **Client Contact:** Ms. Kim Kesler-Arnold

Dollar Value: \$60,000.00

Mateco Drilling Company mobilized a bulldozer, ATV track drill and a skid mounted drill to this site. The bulldozer was used to make roadways into former lagoons. The ATV drill rig was used to drill in difficult to access areas for soil borings and monitoring well installations. The skid mounted drill rig was used inside the very clean facility where overhead clearance was low and removal of all exhaust fumes was essential. Vertical water sampling with the hydro punch II was performed inside this facility.

Also vapor extraction wells and monitoring wells were installed at the site. The level of personal protection was Level D. The decontamination of all equipment was required.

8. **Grand Ledge Parsons Chemical:** (3671-92) March, April and May 1993

Client: NUS Haliburton, **Client Contact:** Mr. Jim Ardune,

Dollar Value: \$40,000.00

Mateco Drilling Company mobilized an ATV drill rig to the site to perform soil borings and monitoring well installations. Ten inch black steel casing was installed permanently into the bedrock using 12 1/4 inch I.D. hollow stem augers. This was performed to seal off the potential for cross contamination.

The borings were further advanced through the 10 inch casing with 4 1/4 inch I.D. hollow stem auger and water rotary drilling methods. Two inch diameter monitoring wells were installed at the site.

The decontamination of the equipment was required. The level of personal protection was Level D.

9. **Kansas City - Hilton:** (3703-93) May and June 1993

Client: Woodward Clyde Consultants, **Client Contact:** Mr. Richard Moberly

Dollar Value: \$28,000.00

This project involved drilling on land and water for proposed riverfront development. The soil borings involved spiltspoon sampling, wireline rock coring of soft shales and vane shear testing of cohesive soils. Our HQ wireline coring system with the dual packer shut off assembly was used successfully in recovering good samples of the soft shales and defining zones of incompetent limestone.

10. **Barrels Incorporated:** (3704-93) May and June 1993

Client: Conestoga-Rovers and Associates, Limited,

Client Contact: Mr. Renato Pasqualoni, **Dollar Value:** \$49,619.50

Mateco Drilling Company was responsible to write and maintain a health and safety plan for this site. We were required to have our PPD meter onsite to the monitor the breathing zones during drilling.

Soil borings were performed to collect soil samples and install 2 inch diameter monitoring wells. Extensive spiltspoon decontamination was required. The level of personal protection was Level D and Level C. The decontamination of all equipment was required.

Recovery Well Installation & Pump Testing:

Mateco Drilling Company has performed drilling projects involving recovery well installation with long-term pump testing with storage management and treatment of the purge water.

Large Barge & Tug Soil Water Drilling:

A number of projects have been drilled on the Great Lakes for the U.S. Army Corps of Engineers and the U.S. Coast Guard. Soils drilling has been performed to depths of 15' to 150' depths.

Small Lagoons and River Drilling:

Access to small lagoons and rivers is also available through Mateco Drilling Company.

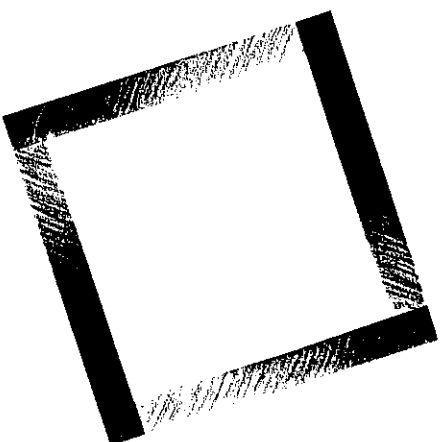
HEALTH AND SAFETY

All Mateco Drilling Company employee's are fully trained in accordance with OSHA safety and training requirements including eight hour refresher courses.

All of our employee's are required to comply with our substance abuse policy, in-house manual on safety and respiratory protection program.

Roy F. Weston, Inc.

Analytics Division



WESTON
MANAGERS DESIGNERS/CONSULTANTS



QUALIFICATIONS

WESTON's Analytics Division is a leader in the field of environmental analytical chemistry with a collective capacity to analyze several thousand samples each month of water, wastewater, soil, sediment, sludge, wastes, and air for an extensive array of organic and inorganic parameters. With a highly experienced staff of trained professional chemists and state-of-the-art equipment, the WESTON laboratories employ the analytical QA/QC and reporting protocols of U.S. EPA CLP, SW-846, Methods for Chemical Analysis of Water and Wastes, NIOSH and ASTM.

WESTON's LABORATORY CERTIFICATIONS

WESTON's Lionville and Stockton laboratories both have participated in the U.S. EPA Contract Laboratory Program to provide organic and inorganic TCL analyses and are highly experienced in performing these protocols. All three laboratories hold Special Analytical Services (SAS) contracts to provide CLP level data for analyses outside the scope of the CLP RAS Statements of Work. WESTON's laboratories routinely analyze samples and prepare litigation-quality data packages in accordance with EPA protocols for volatile, semivolatile, organochlorine pesticides/PCBs, metals, and cyanide in soil and water matrices.

WESTON's Laboratories are currently certified or approved in 37 of the 40 states that have programs to provide environmental analytical chemical services (water, wastewater, and hazardous wastes). The list of states where WESTON has current or pending laboratory certifications is shown in Table A. The WESTON Laboratories are also certified or approved to provide analytical services to the U.S. Army (USATHAMA), the U.S. Air Force, U.S. Navy (NEESA), the Corps of Engineers, DOE, and HAZWRAP.

The WESTON Auburn Laboratory has been certified by the American Industrial Hygiene Association (AIHA) for the analysis of metals, solvents and asbestos, and routinely analyzes proficiency analytical test (PAT) samples.

The WESTON Lionville Laboratory is under contract to the State of New York and is a past contractor to Pennsylvania, New Jersey, and Virginia to provide analytical services supporting contamination assessments at known or suspected hazardous waste sites, enforcement investigations, and permit (NPDES) required monitoring activities. The Gulf Coast Laboratory holds similar contracts with the States of Illinois and New Jersey, and the Stockton Laboratory has held a similar contract with the State of Alaska.

WESTON's laboratories participate in numerous Federal, state, and industrial audit and

WESTON Analytics Division
Certification Status
April 1994

State	Certification Category	Mobile	Stations	Gulf Coast
Alabama	Drinking Water	Certified		Certified
Alaska	Drinking Water	Certified	Certified	Not Pursued
Arizona	Drinking Water Wastewater Hazardous Waste Air	Certified Certified Certified Certified	Certified Certified Certified	Certified
Arkansas	Wastewater Solid/Haz. Waste	Certified Certified		Certified Certified
California	Drinking Water Wastewater Hazardous Waste Dioxin	Certified Certified Certified Certified	Certified Certified Certified Not Pursued	Certified Certified Certified Not Pursued
Colorado	Drinking Water	Certified		Certified
Connecticut	Drinking Water Wastewater Trade Waste/Soil	Certified Certified Certified	Pending Pending Pending	Certified Certified Certified
Delaware	Drinking Water	Certified		Certified
Florida	Drinking Water ELAP (DW/WW/HW)	Certified Pending OAP	Pending OAP	Certified Certified
Georgia	Drinking Water (Micro only)	Not Pursued	Not Pursued	Not Pursued
Hawaii	Drinking Water	Not Pursued	Not Pursued	Not Pursued
Idaho	Drinking Water	Certified	Certified	Certified
Illinois	Drinking Water Microbiology	Not Pursued Not Pursued	Not Pursued Not Pursued	Certified Certified
Indiana	Drinking Water	Pending		Certified
Iowa	Drinking Water	Certified		Certified
Kansas	Drinking Water Wastewater Hazardous Waste	Certified Certified Certified	Pending Pending Pending	Certified Certified Certified
Kentucky	Drinking Water	Certified		Certified
Louisiana	Drinking Water	Certified		Certified

State	Certification Category	Mountain	Shoetown	Gulf Coast
Maine	No Program	----	----	-----
Maryland	Drinking Water	Certified		Certified
Massachusetts	Drinking Water Wastewater	Pending Pending	Certified Certified	Certified Certified
Michigan	Drinking Water	Certified		Certified
Minnesota	Drinking Water Wastewater	Certified Certified		Certified Certified
Mississippi	No Program	-----	-----	-----
Missouri	Drinking Water	-----	-----	-----
Montana	Drinking Water	Certified		Certified
Nebraska	No Program	-----	-----	-----
Nevada	Drinking Water Wastewater	Certified Certified	Certified Certified	Certified Certified
New Hampshire	Drinking Water Wastewater	Certified Certified	Certified Certified	Certified Certified
New Jersey ¹	Drinking Water Wastewater Hazardous Waste ¹	Certified Certified Approved	Certified Certified Approved	Certified Certified Approved
New Mexico	No Program	-----	-----	-----
New York	Drinking Water Wastewater Hazardous Waste Air/Emissions CLP	Certified Certified Certified Certified Certified	Certified Certified Certified Not Pursued	Certified Certified Certified Not Pursued
North Carolina	Drinking Water Wastewater	Certified Certified		Certified Certified
North Dakota	Drinking Water Wastewater	Certified Certified	Certified Certified	Certified Pending
Ohio	No Program	-----	-----	-----
Oklahoma	Wastewater Hazardous Waste	Certified Certified		Certified Certified
Oregon	No Program	-----	-----	-----
Pennsylvania	Drinking Water Radon	Certified Certified	Certified Not Pursued	Certified Not Pursued
Rhode Island	Drinking Water Wastewater Hazardous Waste	Certified Certified Certified	Pending All Categories	Not Pursued

State	Certification Category	Llanoville	Section	Gulf Coast
South Carolina	Drinking Water Wastewater Hazardous Waste	Certified Certified Certified	Certified Certified Certified	Certified Certified Certified
South Dakota ²	Drinking Water Wastewater Hazardous Waste	Case-by-Case		Case-by-Case
Tennessee	Drinking Water UST	Certified		Certified Approved
Texas	No Program	----	----	----
Utah	Drinking Water Wastewater Hazardous Waste	Certified Certified Certified	Certified Certified Certified	Certified Certified Certified
Vermont	No Program	----	----	----
Virginia	Drinking Water	Certified		Certified
Washington	Wastewater	Certified	Certified	Certified
West Virginia	Drinking Water	Certified		Certified
Wisconsin	Drinking Water Wastewater Hazardous Waste UST	Certified Certified Certified Pending	Certified Certified Certified	Certified Certified Certified
Wyoming	Drinking Water	Certified		Certified

¹New Jersey does not have a formal Hazardous Waste Certification Program that offers laboratory documentation of certification. However, New Jersey will allow laboratories to analyze waste samples if the laboratory is certified for those parameters in the Wastewater Program and if the methods of analyses are comparable. New Jersey expects to have a Hazardous/Solid Waste Program established within the next 1 - 2 years.

²South Dakota does not have a formal certification program, however, approval may be obtained on a project-by project basis.

**** Attachment I ****

Florida Gulf Coast's QAPP has been "Approved Pending Revisions", which was originally submitted in August 1993. Requested revisions to this document were submitted in December 1993. The laboratory is permitted to perform analytical work under this approval.

Georgia A new drinking water program has been initiated for laboratories to participate. However, reciprocal certifications to out-of-state laboratory's will not be offered at the present time.

Illinois As of July 28, 1992, Illinois only certifies adjacent states for Drinking Water Analyses.

Maine Will certify Out-Of-State (OOS) labs if their Home State recognizes Maine in a reciprocal agreement.

Mississippi There is a DW Program available, BLT, labs must analyze samples from a Mississippi Water Supply Co. MS will not accept WS PE Results.

Nebraska State Labs perform all DW analysis.

New Mexico Only certified labs who are certified by the Regional USEPA Office.

Ohio DW Reciprocal Program discontinued on 2/23/90. In-state laboratory's perform all analytical work on public drinking water. Certification is not required to perform work in the State of Ohio, for drinking water or wastewater.

Oregon Only certifies adjacent states or those certified by the Utah Department of Health.

South Dakota DW Program Pending approval by State Legislation. Certification may be approved on a project-by-project basis.

Texas Programs in review, sent letter of interest.

Vermont Only certifies in-state labs due to the availability of limited resources. A committee is presently being formed to discuss the option of offering certification to OOS labs.

Washington DW Program is initially certifying only in-state laboratories at the present time.

WESTON Analytics Division
Current Contract Approvals
April 1994

Contracts	Elizaville	Stockton	Gulf Coast
State "Superfund"	PA DER NYS DEC		Illinois, State Funded Illinois, Federal Funded New Jersey
U.S. Air Force	Yes	Yes	Yes
U.S. Navy	Yes	Yes	Yes
U.S. Dept. of Agric.	Yes	Yes	Yes
U.S. Army Corps of Engineers	Yes	Yes	Yes
USATHAMA	Yes		
HAZW RAP	Yes		
EPA SAS Program	Yes	Yes	Yes
3M	Yes	Yes	Yes

performance sample programs for organic and inorganic analyses, including regular participation in the U.S. EPA Water Pollution (WP) and Water Supply (WS) Studies.

NRC LICENSE - LIONVILLE

The Analytics Division's Lionville Laboratory is licensed by the Nuclear Regulatory Commission to analyze mixed waste samples (i.e., samples that are analyzed for chemical contamination and which also contain radioactive materials). WESTON has dedicated 10,000 square feet of laboratory space to the receipt, preparation, and analysis of these samples. WESTON's license permits receipt of samples which contain up to 100 nCi/g or 100 nCi/ml with an on-site storage limit of 100 mCi. The most recent license amendment allows the receipt and handling of samples which contain up to 1000 nCi/g of tritium.

This facility is operated in strict conformance with the health and safety requirements of WESTON's Corporate Health and Safety Program and the requirements of our NRC License. A copy of WESTON's NRC license amendment is available upon request.

WESTON does not perform radiochemical analyses, but routinely subcontracts those analyses to one of several highly-qualified firms under standing agreements.

APPENDIX B:

SK-CRC Phase I RFI Certifications

Safety-Kleen Corp. - CRC
RFI Phase I Report

Log No. B-121

Upon completion of Phase I of the RFI, this statement is to be completed by both a responsible officer of the owner or operator (as defined in 35 IAC 702.126) and by the registered professional engineer overseeing all work associated with the investigation. Submit one copy of the certification with original signatures and three additional copies.

RFI Phase I activities at the facility described in the RFI Phase I Workplan have been completed in accordance with the specifications in the approved RFI Workplan. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

ILD005450697
USEPA ID Number

Chicago Recycle Center
Facility Name

Scott E. Fore 6/24/94
Signature of Owner/Operator Date

Scott E. Fore
Senior VP-Environment, Health & Safety
Name and Title

Paul L. Freedman 6/27/94
Signature of Registered P.E. Date

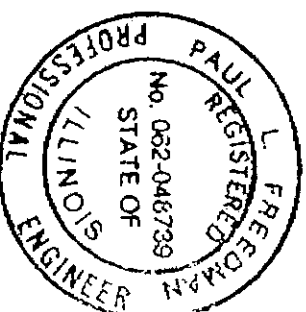
Paul L. Freedman 062-048739
Name of Registered P.E. and Illinois
Registration Number

Mailing Address of P.E.:

Registered P.E.'s Seal:

2395 Huron Parkway
Ann Arbor, MI 48104
(Limco-Tech, Inc.)

LWE:MH:sf/sp/634Y,15



* Please note some minor modifications to the Workplan were necessary based on actual field conditions (e.g. drilling locations due to underground obstructions).

94-240

Safety-Kleen Corp. - CRC
RFI Phase I Report
Laboratory Certification
Log No. B-121

Upon completion of Phase I of the RFI, this statement is to be completed by both a responsible officer of the owner or operator (as defined in 35 IAC 702.126) and (2) a responsible officer (as defined in 35 IAC 702.126) of the laboratory which conducted the chemical analyses required as part of Phase I of the RFI. The original of this statement shall accompany the original certification statement for the overall Phase I activities and the RFI Phase I Report.

The applicable sample collection, handling, preservation, preparation and analysis conducted as part of Phase I of the RFI at the facility described in this document that the chemical laboratory was responsible for has been conducted in accordance with the specifications in the approved workplan. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

USEPA ID Number
LC9005450697

Signature of Owner/Operator
Scott E. Fore 6/24/94
Date

Name of Laboratory
WESTON - LAULIE COAST, INC.

Chicago Recycle Center

Facility Name
Scott E. Fore
Senior VP-Environment, Health & Safety
Name and Title of Owner/Operator Representative

Signature of Laboratory
Michael J. Healy 6-16-94
Responsible Officer Date

Michael J. Healy Vice President / Lab Manager
Name and Title of Laboratory Responsible Officer

Mailing Address of Laboratory:

WESTON - LAULIE COAST, INC.

2417 BOND ST.

UNIVERSITY PARK, IL 60436

LNE:MR:SF/SP/634Y,16

* After Receiving The 18th Letter Dated
23 SEPTEMBER 1993, NO ATTEMPT WAS
MADE OR MADE TO REMOVE LOW LEVEL
TELEPHONE DETECTION LIMITS AS DISCUSSED
ON PAGE 4, SECTION 9.

APPENDIX C:

Color Photos of SK-CRC Phase I RFI Activities



Installation of deep boring (SB5-deep) in alley, December 1993.



Installation of MW-7 west of Container Storage Area #1, December 1993.



Installation of MW-6 southwest of Container Storage Area #1, December, 1993.



Installation of MW-9 south of Tank Farm #3, December 1993.



Well Development at MW-9 south of Tank Farm #3, December 1993.



Decontamination of Brass Liners for Soil Sampling, December 1993.



In-Situ Hydraulic Conductivity Test at MW-2 north of Tank Farm #3,
February 1994.



In-Situ Hydraulic Conductivity Test at MW-8 north of Container Storage
Area #1, February 1994.



In-Situ Hydraulic Conductivity Test at MW-9 south of Tank Farm #3,
February 1994.

APPENDIX D:

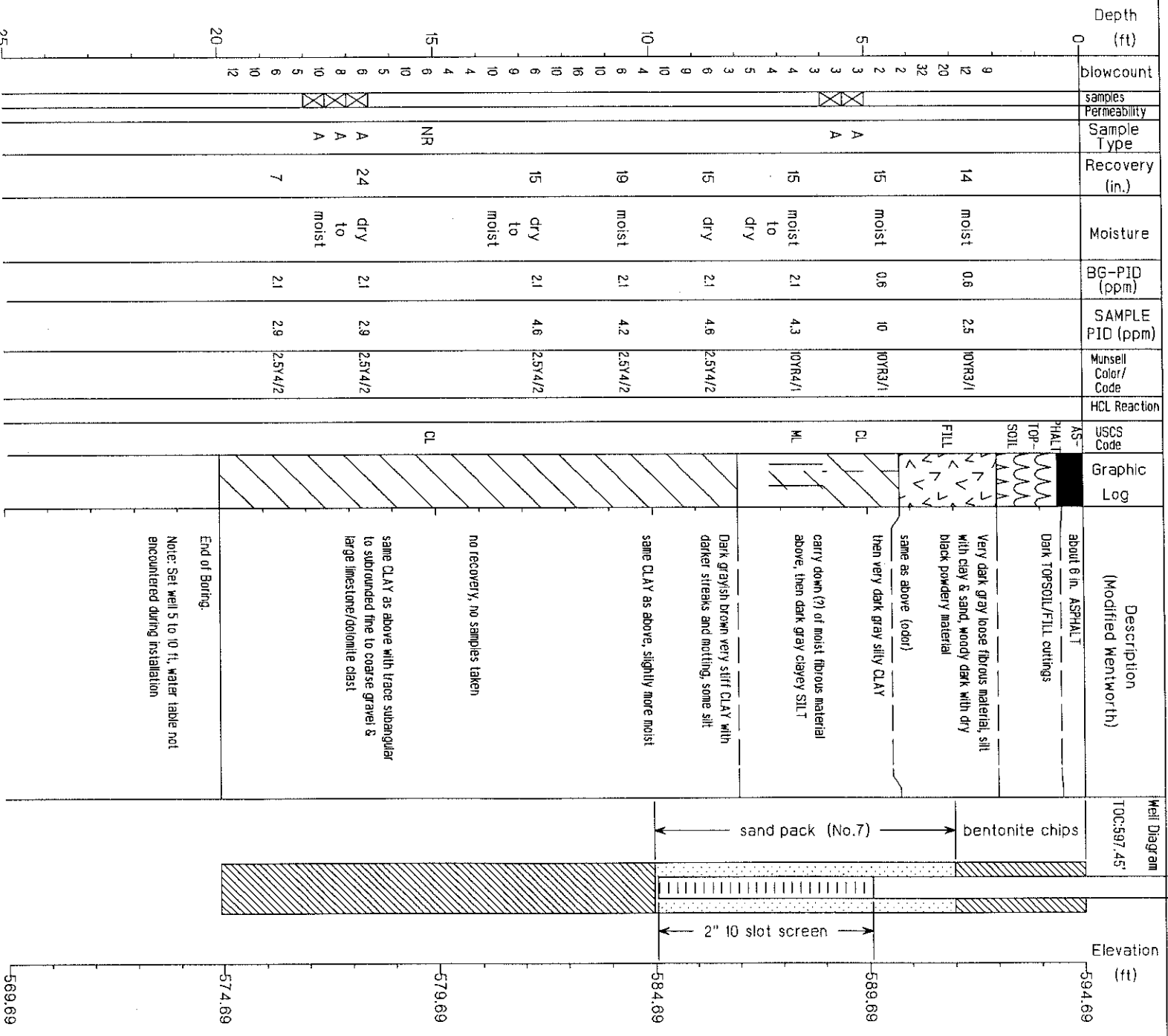
Soil Boring Logs

SB4/MW4

Site: Safety Kleen Chicago Recycle Center, IL

Compilation Date: 08/29/1994

Date Drilled: 12/7/93
 Drilled By: MATECO
 Logged By: LTI, JSD



P: Physical sample, A: Analytical sample
 NR: No sample Recovery

SB5/MW5

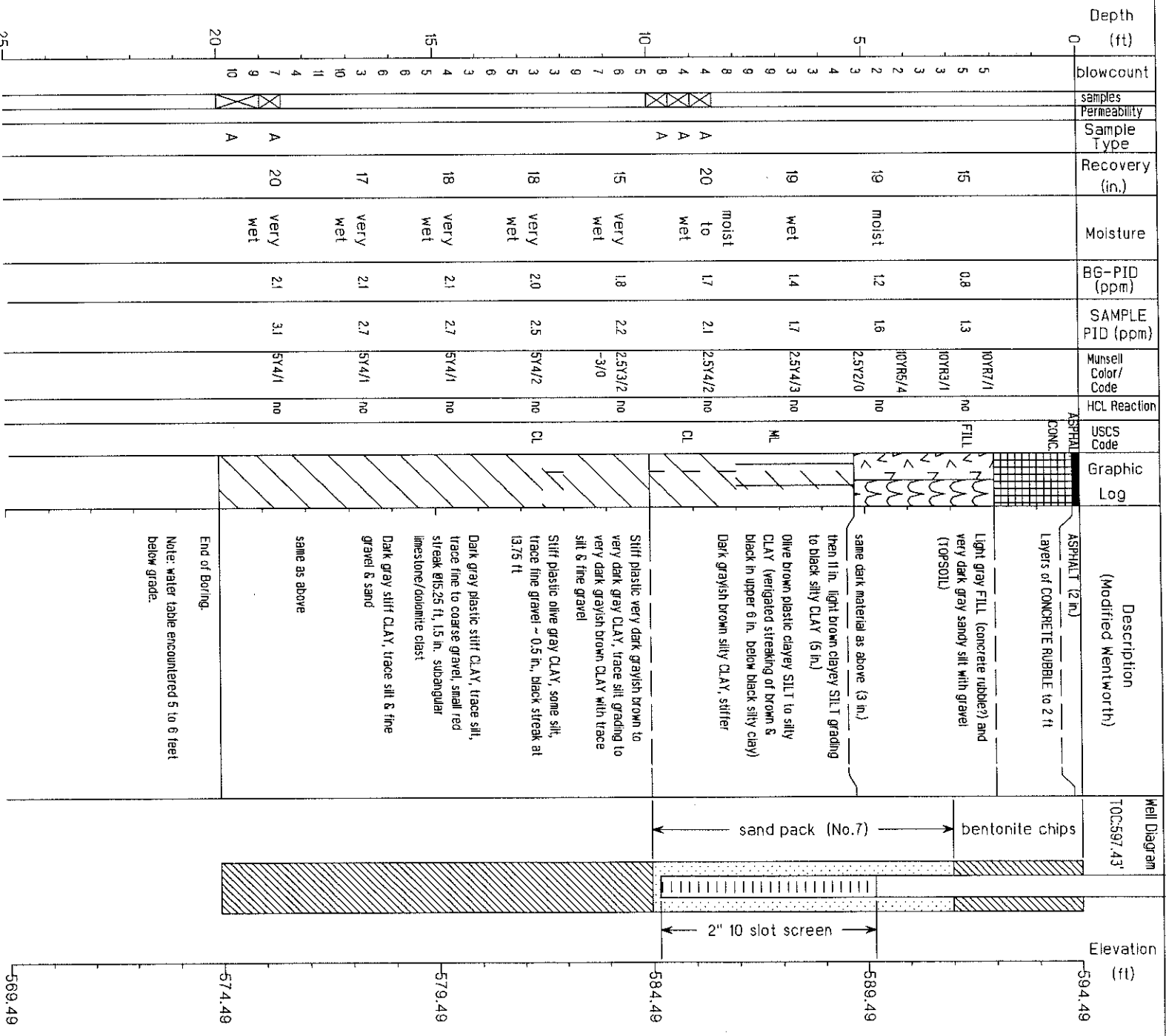
Site: Safety Kleen Chicago Recycle Center, IL

Compilation Date: 06/29/1994

Date Drilled: 12/7/93

Drilled By: MATECO

Logged By: LTI, JSD



P: Physical sample; A: Analytical sample
NR: No Sample Recovery

SB5D

Site: Safety Kleen Chicago Recycle Center, IL

Compilation Date: 06/17/1994

Date Drilled: 12/9/93

Drilled By: MATECO

Logged By: LTI, JSD

Depth (ft)	Well Diagram										Elevation (ft)
	blowcount	samples	Permeability	Sample Type	Recovery (in.)	Moisture	BG-PID (ppm)	SAMPLE PID (ppm)	Munsell Color/Code	HCL Reaction	
0											0
5											5
10											10
15											15
20											20
25											25
0											0
5											5
10											10
15											15
20											20
25											25
0											0
5											5
10											10
15											15
20											20
25											25

Description
(Modified Wentworth)

Drilled down to 20 feet to start split spoon
sampling Drilling got hard until 11 feet (same
as SB 5) then into clay

Stiff plastic dark grayish brown laminated
CLAY, trace gravel, sand, silt
same as above, with 1 in. non-decomposed
wood chunk
same as above, increased silt & fine sand

P: Physical sample, A: Analytical sample
NR: No sample Recovery

SB5D

Site: Safety Kleen Chicago Recycle Center, IL
 Compilation Date: 06/28/1994

Date Drilled: 12/9/93
 Drilled By: MATECO
 Logged By: LTI, JSD

Depth (ft)	blowcount	Permeability	Sample Type	Recovery (in.)	Moisture	BG-PID (ppm)	SAMPLE PID (ppm)	Munsell Color/Code	HCL Reaction	USCS Code	Graphic	Log	Well Diagram	Elevation (ft)
25	12													25
15	15													30
7	7													35
8	8		P	24	wet to moist	31	32	2.5Y4/2				same CLAY for upper 6 in., then very stiff dark grayish brown laminated CLAY with increasing gravel (green shale and white limestone, gravel and cobbles in tip of spoon); coarser material generally oriented parallel to clay laminae; trace iron sulfide grains		30
22	22											same as above, but very stiff and dryer		30
30	30		P	22	moist	31	37	2.5Y4/2						30
15	15													30
18	18													30
27	27													30
30	4		P	24	wet to moist	31	33	2.5Y4/2				Angular to subangular fine to coarse gravelly silt dark grayish brown CLAY with silt and sand (16 in.)		30
5	5											then very stiff grayish brown CLAY (as in 28 to 30 feet)		30
18	18													30
30	30													30
6	6													30
7	7		P	24	moist	33	4.0	2.5Y4/2				Stiff dark grayish brown laminated CLAY with some subangular to subrounded fine gravel and silt		30
13	13													30
20	20													30
10	10													30
15	15													30
35	23		P	24	wet to moist	32	7.2 kept climbing	2.5Y4/2				about 6 in. carry down then same CLAY as above, less coarse material (spid impacts appear to be from background influences)		35
4	4													35
4	4		P	20?	wet	28	33	2.5Y4/2				about 8 in. of same CLAY as above		35
12	12													35
15	15													35
7	7													35
9	9		P	24	moist	29	31	2.5Y4/2				then a very loose muddy SILT zone; cuttings coming up very loose & wet		35
11	11													35
18	18													35
40	9		P	24	moist to dry	29	30	2.5Y4/2				Stiff grayish brown CLAY with some subrounded to coarse gravel & trace subrounded cobble; trace iron sulfide grains		40
12	12													40
13	13		P	24	moist	29	30	2.5Y4/2				same CLAY as above, increased subrounded to subangular cobbles, some limestone, more friable fragments; some large limestone clasts		40
14	14													40
7	7													40
10	10		P	24	moist	29	32	2.5Y4/2				6 in. same CLAY as above,		40
15	15													40
23	23													40
8	8													40
11	11		P	24	moist	29	39	2.5Y4/2				then dark grayish brown very stiff laminated CLAY with trace subrounded fine gravel & cobble; trace fine sand/silt		40
45	22													45
30	30													45
8	8		P	24	moist	28	30	2.5Y4/2				about 14 in. same CLAY as above then increasing silt (10 in.)		45
9	9													45
10	10													45
11	11													45
18	18													45
30	30													45
50	50		P	24	moist	27	35	2.5Y4/2				about 15 in. dark grayish brown stiff CLAY with trace subrounded fine to coarse gravel and cobbles then very thin (<1/4 in.) gravelly zone then some CLAY, less coarse material and more plastic; very fine laminae in clay		50
												17 in. same plastic CLAY above		50
												then about 1/2 in. sandy CLAY, very gravelly (subangular shaley gravel), muddy silt/silty CLAY		50

P: Physical sample; A: Analytical sample
 NPT: No sample Recovery

SB5D

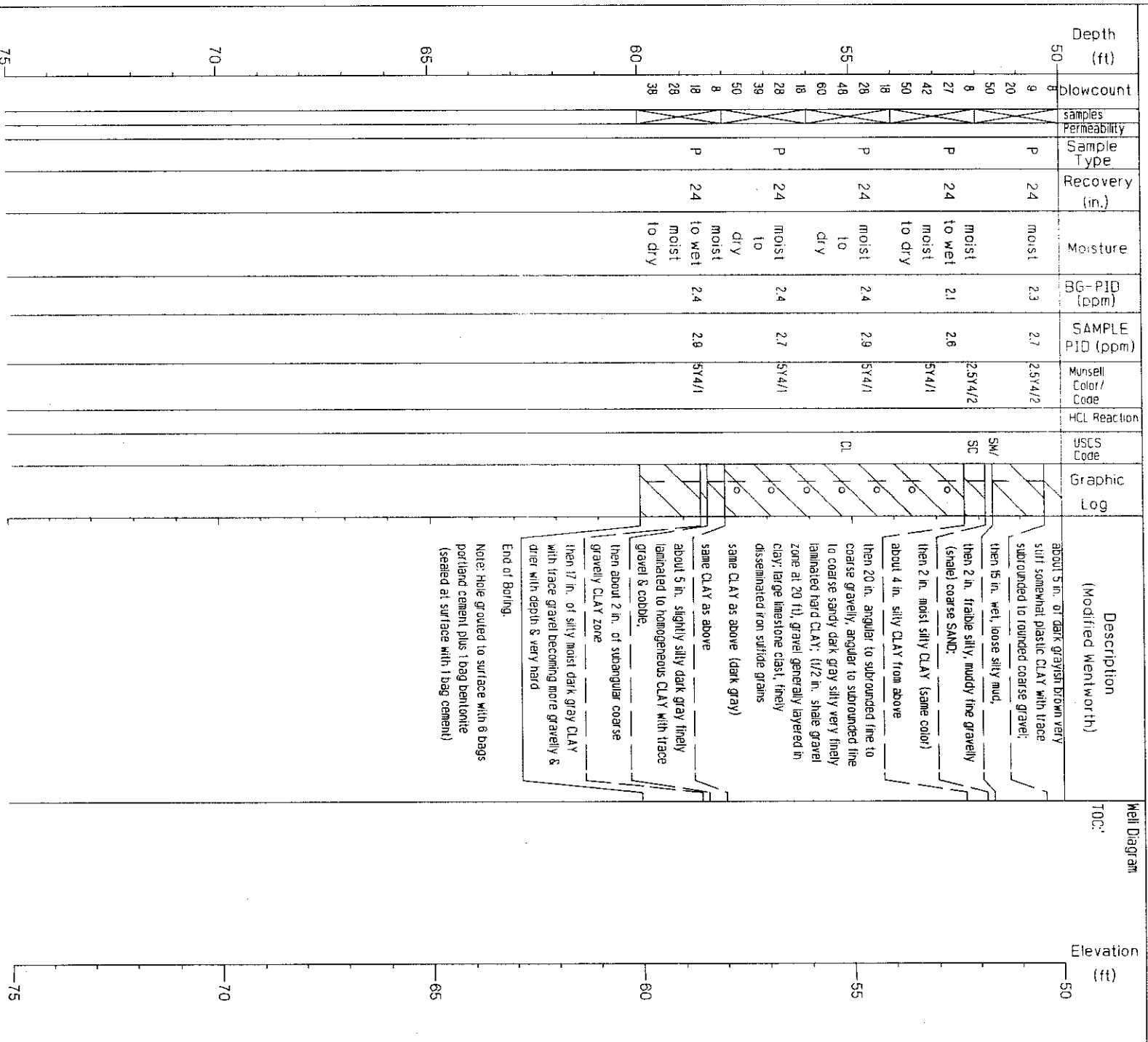
Site: Safety Kleen Chicago Recycle Center, IL

Compilation Date: 08/28/1994

Date Drilled: 12/9/93

Drilled By: MATECO

Logged By: LTI, JSD



Date Drilled: 12/6/93

Drilled By: MATECO

Logged By: LTI, JSD

[illegible]

SB7/MW7

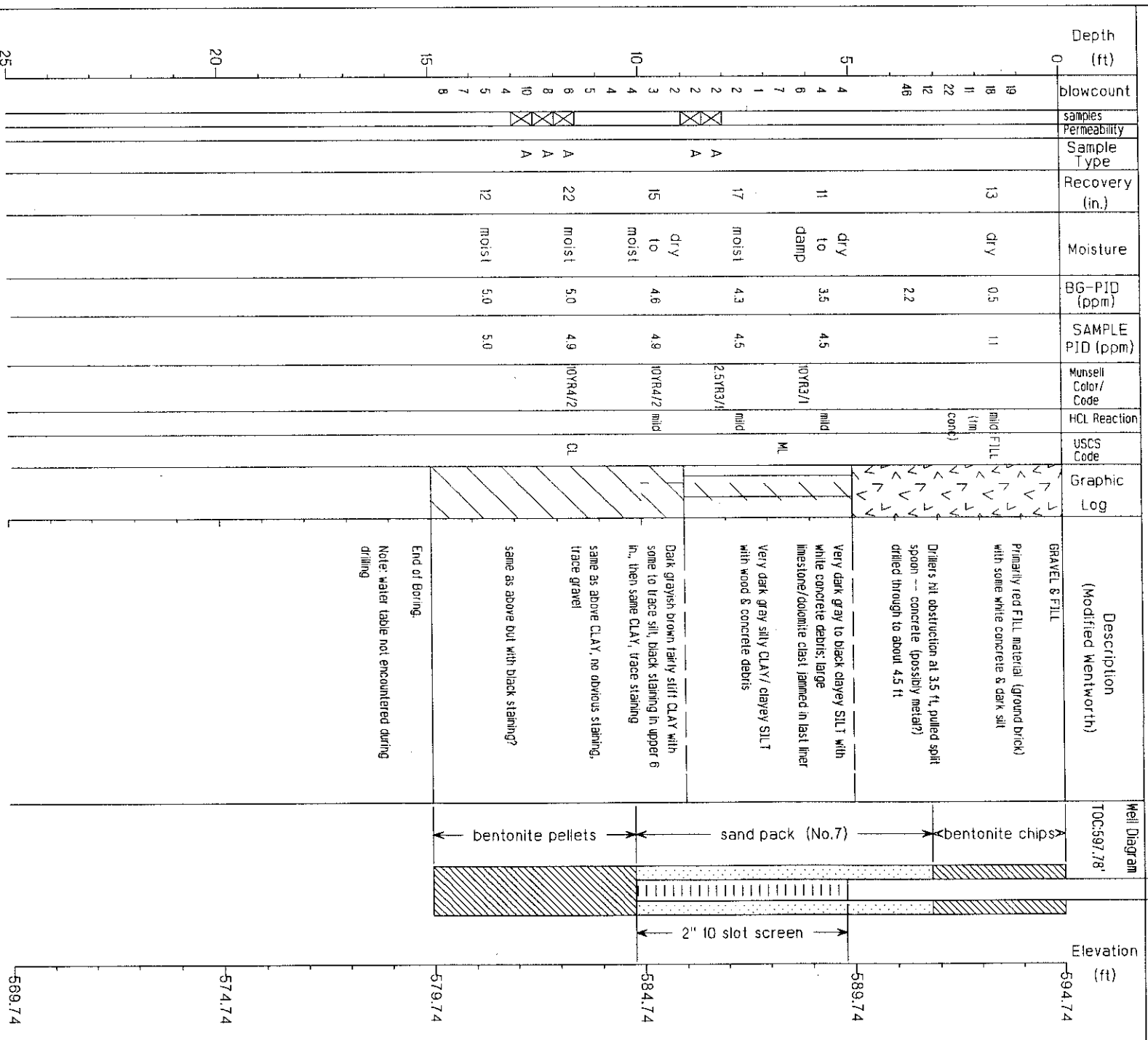
Site: Safety Klean Chicago Recycle Center, IL

Compilation Date: 06/24/1994

Date Drilled: 12/8/93

Drilled By: MATECO

Logged By: LTI, JSD



P: Physical sample, A: Analytical sample
NR: No sample Recovery

SB8/MW8

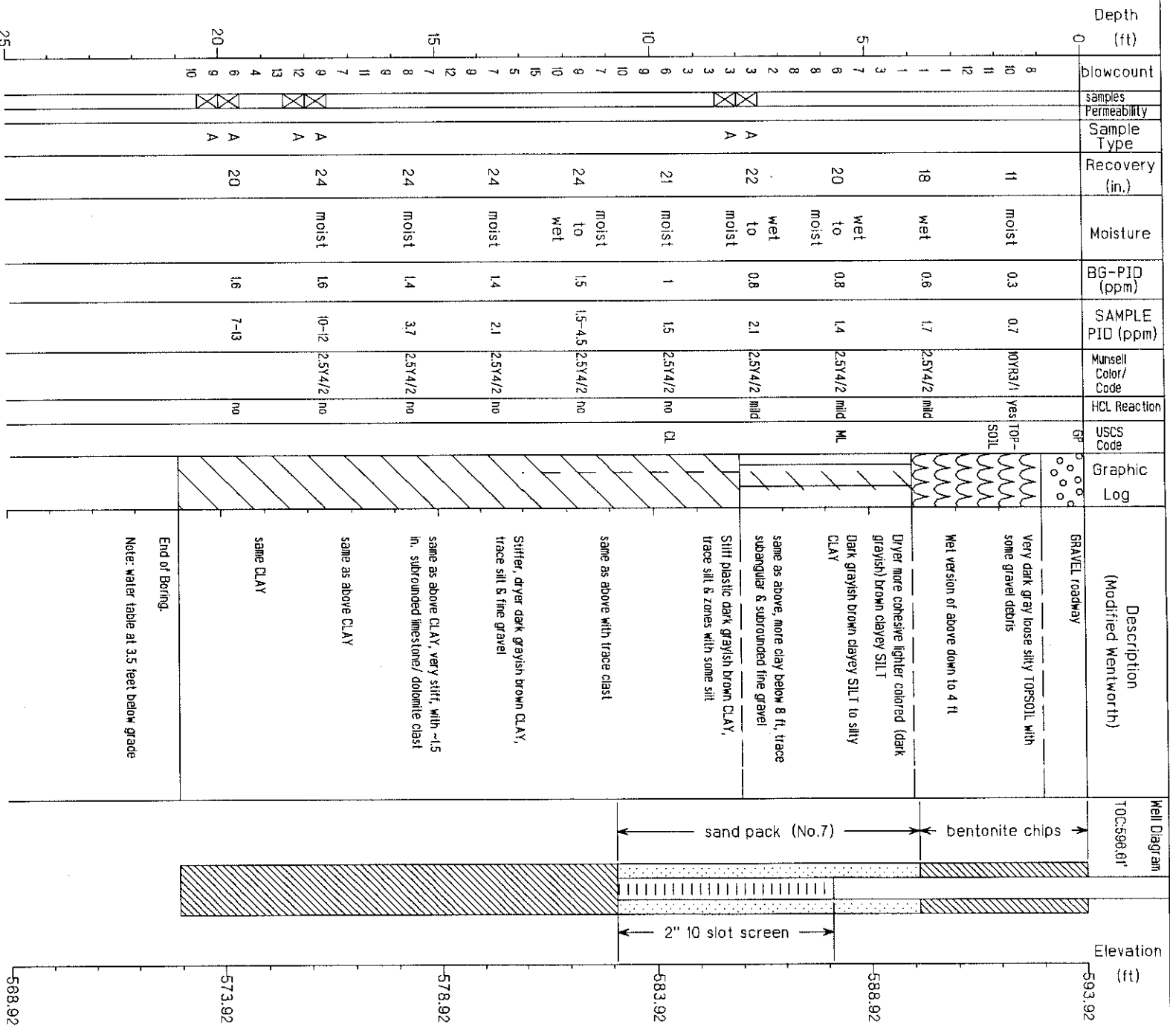
Site: Safety Kleen Chicago Recycle Center, IL

Compilation Date: 06/29/1994

Date Drilled: 12/8/93

Drilled By: MATECO

Logged By: L.T.I. JSD



P: Physical sample, A: Analytical sample
NR: No sample Recovery

SB9/MW9

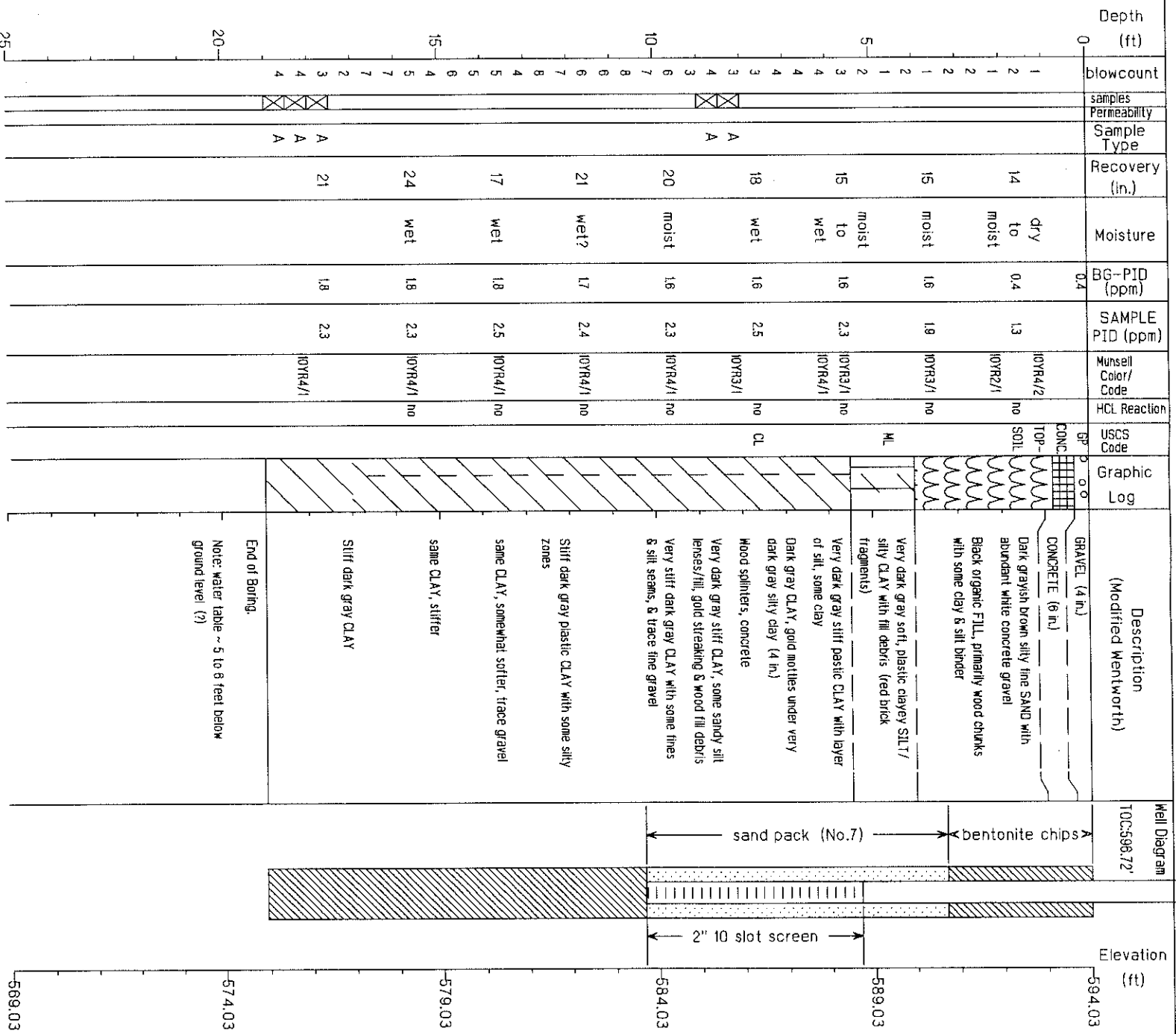
Site: Safety Kleen Chicago Recycle Center, IL

Compilation Date: 06/29/1994

Date Drilled: 12/6/93

Drilled By: MATECO

Logged By: LTI, JSD



P: Physical sample, A: Analytical sample
NR: No sample Recovery

Date Drilled: 12/8/93

Drilled By: MATECO

Logged By: LTI, JSD

Depth (ft)	blowcount	samples	Permeability	Sample Type	Recovery (in.)	Moisture	BG-PID (ppm)	SAMPLE PID (ppm)	Munsell Color/Code	HCL Reaction	USCS Code	Graphic Log	Description (Modified Wentworth)
0													
12					12		4.1	6.3	10YR3/1	no	FILL		FILL - surface material in very dark gray silty topsoil with white powdery material & concrete rubble
14													
15													
14													
9				A	9	dry	4.1	6.0	10YR3/1	mild			same as above, more white concrete material & rubble
5													
4													
3													
7													
4					24	wet	3.7	4.3	2.5Y4/2	no			Dark grayish brown clayey SILT with black streaking
3													
4				A	23	very wet	3.5	6.9	2.5Y3/2	mild	ML		no recovery first split spoon, but odor in liners, PID ~ 5-10
5													Loose very dark grayish brown clayey SILT
3													Silt dark grayish brown clayey SILT, varved?
4					18	moist	3.3	4.1	2.5Y4/2	no			
5													
3													
4													
5													
3													
4					15	moist to wet	3.3	5.1	2.5Y4/2	no	CL		Stiff dark grayish brown silty CLAY with black mottling & becoming less silty with depth & stiffer
5													
7													
8													
7													
8													
6													
4					24	moist to wet	3.1	3.3	2.5Y4/2	mild	CL		Stiff plastic dark grayish brown CLAY with trace fines & fine gravel
3				P.A.									same CLAY
14													
8				A	24	moist to wet	3.2	4.4	2.5Y4/2	mild			same CLAY
10													
14													
20													End of Boring. Note: water table encountered 5 to 6 feet below grade
25													

Well Diagram TOC:594.23'

bentonite chips

sand pack (No.7)

2" 10 slot screen

Elevation (ft)

594.58

589.58

584.58

579.58

574.58

569.58

APPENDIX E:

Data Validation Procedures



LTI – Limno-Tech, Inc.
Memorandum

TO: File DATE: 1/24/94

FROM: Jing CHEN PROJECT: SKCH1

SUBJECT: Quality Assurance Review of Analytical Data
Safety Kleen Chicago Recycle Center, Phase I Investigation

The data packages were reviewed using the guidances, including "Functional Guidelines for Evaluating Inorganic Analyses, July 1988", "National Functional Guidelines for Organic Data Review, June 1991", and Region V Standard Operating Procedure for Validation of CLP Organic Data, April 1991". Because a standard RCRA laboratory data package is less detailed than a CLP laboratory data package, the suitability of using the above guidelines to evaluate RCRA data is not fully known at this time, and the availability of specific guidelines for RCRA data evaluation is still a question. Basically, the case narrative was reviewed at first for each of the data packages, and then the appropriate qualifiers were assigned to the associated compounds if there were any lab deficiencies. The validation was done based on the available information provided by the lab.

SOIL

1. TCLP Metals

All analyses were performed within the required holding time. No invalid lab contamination and interferences occurred during operation. No data qualifier needs to be changed.

2. Volatile Organics

1) Holding Time

All initial dilution and analysis of samples were within holding time (14 days). However, the secondary and/or tertiary dilution and analyses occurred beyond the recommended holding time for some samples. The following table presents those affected sample identification numbers, the corresponding lab identification numbers, the dates of collection and analysis, and affected compound(s). When holding time was exceeded, the associated samples with positive results were flagged with a "J" qualifier to indicate an estimated value and negative (non-detected) results were flagged with a "UJ" qualifier to indicate that the reported detection limit is an estimated value.

Sample ID.	Lab Batch #	Date Collected	Date Analyzed	Associated Compounds
SB10 17.5-18	9312G116	12/8/93	12/27/93	1,1,1- TCA
SB8 19.5-20	9312G116	12/8/93	12/23/93	trichlorotrifluoroethane
SB8 17.5-18	9312G116	12/8/93	12/23/93	trichloroethene (TCE)
				tetrachloroethene
				toluene
				trichlorotrifluoroethane

SB8 7.5-8	9312G116	12/8/93	12/23/93	tetrahydrofuran
SB7 11.5-12	9312G116	12/8/93	12/23/93	acetone, benzene, toluene,

		12/8/93	12/28/93	ethylbenzene, styrene, trichlorotrifluoroethane
SB7 8-8.5	9312G116	12/8/93	12/23/93	trichlorotrifluoroethane
SB4 5-5.5	9312G116	12/7/93	12/22/93	tetrahydrofuran toluene,tetrahydrofurn

2) Blanks

Acetone and/or methylene chloride were(was) detected in the method blanks. Samples with results greater than five times (ten times for the common contaminants) the concentration found in the associated blank are considered positive but estimated and are flagged "BJ". Samples with results less than five times (ten times for the common contaminants) the concentration found in the associated blank are considered negative and are flagged "BU". The following is a list of the qualified samples.

Sample ID.	Lab Batch #	Associated Compounds
SB5 18.5-19	9312G116	acetone
SB5 8.5-9	9312G116	acetone
SB4 DUP4 17-17.5	9312G116	acetone
SB7 8-8.5	9312G116	acetone, methylene chloride
SB7 11.5-12	9312G116	methylene chloride
SB8 7.5-8	9312G116	acetone, methylene chloride
SB8 17.5-18	9312G116	methylene chloride
SB8 19.5-20	9312G116	methylene chloride
SB10 7.5-8	9312G116	acetone, methylene chloride
SB10 17.5-18	9312G116	acetone

Other than the above mentioned corrections, the analyses were normal and the data can be used confidently.

3. Semi-Volatile Organics

1) Holding Time

Most samples were extracted within the holding time (14 days) except for a couple of reruns. The following table presents the affected sample identification numbers, the corresponding lab identification numbers, the dates of collection and extraction, and the affected compound(s). When holding time was exceeded, the associated samples with positive results were flagged with a "J" qualifier to indicate an estimated value and negative (non-detected) results were flagged with a "UJ" qualifier to indicate that the reported detection limit is an estimated value.

Sample ID.	Lab ID.	Date Collected	Date Extracted	Associated Compounds
SB4 5.5-6 rerun	9312G116	12/7/93	12/28/93	All analytes
SB9 18.5-19 rerun	9312G116	12/6/93	12/28/93	All analytes

2) Blanks

The method blanks indicated di-n-butyl-phthalate was analyzed at concentrations below the detection limit. Samples with results greater than five times (ten times for the common contaminants) the concentration found in the associated blank are considered positive but estimated and are flagged "BJ". Samples with results less than five times (ten times for the common contaminants) the concentration found in the associated blank are considered negative and are flagged "BU". The following is a list of affected samples.

Sample ID.	Lab ID.	Associated Compounds
SB7 8.5-9	9312G116	di-n-butyl-phthalate
SB7 12-12.5	9312G116	di-n-butyl-phthalate
SB7 DUP5	9312G116	di-n-butyl-phthalate
SB8 8-8.5	9312G116	di-n-butyl-phthalate
SB8 18-18.5	9312G116	di-n-butyl-phthalate
SB8 20-20.5	9312G116	di-n-butyl-phthalate
SB10 8-9	9312G116	di-n-butyl-phthalate
SB10 18-18.5	9312G116	di-n-butyl-phthalate
SB6 6.5-7	9312G086	di-n-butyl-phthalate
SB6 18-18.5	9312G086	di-n-butyl-phthalate
SB5 9-9.5	9312G086	di-n-butyl-phthalate
SB5 19-20	9312G086	di-n-butyl-phthalate
SB5 9.5-10 DUP3	9312G086	di-n-butyl-phthalate
SB4 5.5-6	9312G086	di-n-butyl-phthalate
SB4 17.5-18	9312G086	di-n-butyl-phthalate

3) Surrogate Recovery

A review of surrogate spike data found surrogate recoveries associated with acid and/or base/neutral fraction semivolatile compound(s) to be outside the acceptable range for the associated samples listed in the following table. The acid fraction analytes in the associated samples should be considered estimated for positive results and are flagged "J", and unusable for negative results and are qualified as "UR" due to less than 10% recoveries for 2,4,6-tribromophenol and 2-fluorophenol. For those recoveries below the lower acceptance limit but greater than 10%, the associated compounds should be considered estimated for positive results and are flagged "J", and estimated reporting limits for negative results and are qualified as "UJ".

Surrogate	Recovery (%)	Control Range(%)	Lab ID.	Associated Sample(s)
2,4,6-tribromophenol	8, 4, 10	19-122	9312G086	SB9 18.5-19, SB4 5.5-6, SB4 5.5-6 RERUN
Nitrobenzene-d5	11,2	23-120	9312G086	SB9 18.5-19, SB4 5.5-6
2-Fluorobiphenyl	14,3	30-115	9312G086	SB9 18.5-19, SB4 5.5-6
Terphenyl-d14	17,5	18-137	9312G086	SB9 18.5-19, SB4 5.5-6
phenol-d5	12,4	24-113	9312G086	SB9 18.5-19, SB4 5.5-6
2-Fluorophenol	12, 4, 0	25-121	9312G086	SB9 18.5-19, SB4 5.5-6, SB4 5.5-6 RERUN

Other than the above mentioned correction, the analyses were normal and no data qualification appears necessary based on data validation.

GROUNDWATER

1. Volatile Organics

1) Holding Time

All initial dilution and analysis of samples were within holding time (14 days). However, the secondary and/or tertiary dilution and analyses occurred beyond the recommended holding time for some samples. The following table presents the affected sample identification numbers, the corresponding lab identification numbers, the dates of collection and analysis, and affected compound(s).

Sample ID.	Lab ID.	Date Collected	Date Analyzed	Associated Compounds
MW10 DUP	9312G375	12/21/93	1/5/94	tetrahydrofuran
MW10	9312G375	12/21/93	1/5/94	tetrahydrofuran
MW2	9312G375	12/21/93	1/5/94, 1/7/94	1,2 dichloroethene, chloroform, toluene
MW8	9312G375	12/21/93	1/5/94	tetrahydrofuran
MW7	9312G375	12/21/93	1/7/94	tetrahydrofuran,
MW4	9312G375	12/21/93	1/5/94	tetrahydrofuran

2) Blanks

The method blank indicated acetone was analyzed at concentrations below the detection limit. Only one sample was affected by this. Samples with results greater than five times (ten times for the common contaminants) the concentration found in the associated blank are considered positive but estimated and are flagged "BJ". Samples with results less than five times (ten times for the common contaminants) the concentration found in the associated blank are considered negative and are flagged "BU".

Sample ID.	Lab ID.	Associated Compounds
MW9 RERUN	9312G375	acetone

Other than the above mentioned corrections, the analyses were normal and the data can be used confidently.

2. Semi-Volatile Organics

1) Holding Time

All initial runs of samples were extracted within the holding time (7 days). All the associated samples were re-extracted outside holding times. When holding time was exceeded, the associated samples with positive results were flagged with a "J" qualifier to indicate an estimated value and negative (non-detected) results were flagged with a "UJ" qualifier to indicate that the reported detection limit is an estimated value. The following table presents those affected sample identification numbers, the corresponding lab identification numbers, the dates of collection and analysis, and affected compound(s).

Sample ID.	Lab ID.	Date Collected	Date Extracted	Associated Compounds
------------	---------	----------------	----------------	----------------------

All rerun	9312G375	12/21/93	1/14/94	All analytes
-----------	----------	----------	---------	--------------

2) Surrogate Recovery

The method blank exhibited low surrogate recoveries of two base/neutral fractions semivolatile compounds. The base fraction analytes in the associated samples should be considered estimated for positive results and are flagged "J", and estimated reporting limits for negative results and are qualified as "UJ".

Surrogate	Recovery (%)	Control Range	Lab ID.	Associated Sample(s)
Nitrobenzene-d5	27	35-114	9312G375	all base/neutral compounds
2-Fluorobiphenyl	32	43-116	9312G375	all base/neutral compounds

Other than the above mentioned correction, the analyses were normal and no data qualification appears necessary based on data validation.



LTI - Limno-Tech, Inc. Memorandum

TO: File DATE: 6/15/94

FROM: Jing CHEN PROJECT: SKCH1

SUBJECT: Quality Assurance Review of Analytical Data
- February, 1994 Groundwater Sampling
Safety Kleen Chicago Recycle Center, Phase I Investigation

A quality assurance review was conducted to validate the results generated from analysis of groundwater samples collected during February 1994 as part of the Phase I Investigation at the Safety Kleen Chicago Recycle Center in Chicago, Illinois. The samples included in this review are listed in the table below. The data packages provided by Roy F. Weston, Inc. Gulf Coast Laboratories, in University Park, Illinois were reviewed using USEPA SW846, Method 8270 protocol as guidance because no specific guidelines are available for RCRA data validation. Basically, the case narrative was reviewed at first for each of the data packages, and then the appropriate qualifiers were assigned to the associated compounds if there were any lab deficiencies. The validation was done based on the available information provided by the lab.

GROUNDWATER SAMPLES INCLUDED IN QUALITY ASSURANCE REVIEW

Limno-Tech Sample I.D.	RFW LOT No.	Date of Sample Collection	Case Number	Parameters Examined
MW-1	9402G294	2/15/94	005	VOA, BNA
MW-2	9402G294	2/15/94	002	TI,PCBs,VOA,BNA (Appendix IX)
MW-3	9402G294	2/16/94	011	VOA, BNA
MW-4	9402G294	2/15/94	010	VOA, BNA
MW-5	9402G294	2/15/94	009	VOA, BNA
MW-7	9402G294	2/15/94	004	VOA, BNA
MW-8	9402G294	2/14/94	006	VOA, BNA
MW-9	9402G294	2/15/94	007	VOA, BNA
MW-10	9402G294	2/14/94	008	VOA, BNA
Rinseblank	9402G294	2/16/94	001	VOA, BNA
Duplicate	9402G294	2/15/94	003	TI,PCBs,VOA,BNA (Appendix IX)

TI: TAL Metals and Cyanide, Sulfide

VOA: HSL Volatile Organics

BNA: HSL Base-Neutral/Acid Organics

The data included groundwater samples collected from nine monitoring wells during the period from February 14 to February 15, 1994 and were submitted, along with one rinse blank and one duplicate, to RFW, for Inorganics, PCBs, Hazardous Substance List (HSL) Volatile Organic Analysis (VOA) and Base Neutral/Acid (BNA) analysis using

the most current Statement of Work (SOW) protocols. The data were found to be of good quality and acceptable for use with no qualifier changes.

1. Inorganics

All analyses were performed within the required holding time. No invalid lab contamination and interferences occurred during operation. No data qualifier needs to be changed.

2. Volatile Organics

1) Holding Time

All analyses of samples were performed within holding time (14 days).

2) Blanks

The method blank indicated clean, so no qualifiers need to be changed.

3. Semi-Volatile Organics

1) Holding Time

All samples were extracted within the holding time (7 days).

2) Matrix Spikes/ Matrix Spike Duplicates

The relative percent difference (RPD) in method blank was above the Quality Control (QC) limit for the compound 1,4-Dichlorobenzene (30%), but the sample used for Matrix Spikes/ Matrix Spike Duplicates were analyzed outside the 12 hour tune limit. The low confidences of the above sample results indicate little likelihood that sample results would be changed.

APPENDIX F:

IEPA Well Construction Diagrams



Illinois Environmental Protection Agency

Well Completion Report

Site #: IEPA ID No. 0316000053 County: Cook Well # MW-4
Site Name: Safety Klean Chicago Recycle Center Grid Coordinate*: Northing 205 Easting -6'
Drilling Contractor: Mateco Date Drilling Started: 12/7/93
Driller: Bob Dyer/ Dave Bailey Geologist: Joyce Dunkin Date Completed: 12/7/93
Drilling Method: Hollow Stem Auger Drilling Fluids Type: None

Annular Space Details:

Elevations .01 ft.

Type of Surface Seal: Cement
Type of Annular Sealant: Bentonite Chips
Amount of Cement: # of Bags: lbs. per bag
Amount of Bentonite: # of Bags: lbs. per bag
Type of Bentonite Seal (Granular, Pellet): 3/4" Pellets
Amount of Bentonite: # of Bags: 3 lbs. per bag 50
Type of Sand Pack: #7 quartz sand
Source of Sand:
Amount of Sand: # of Bags: 3 lbs. per bag 50

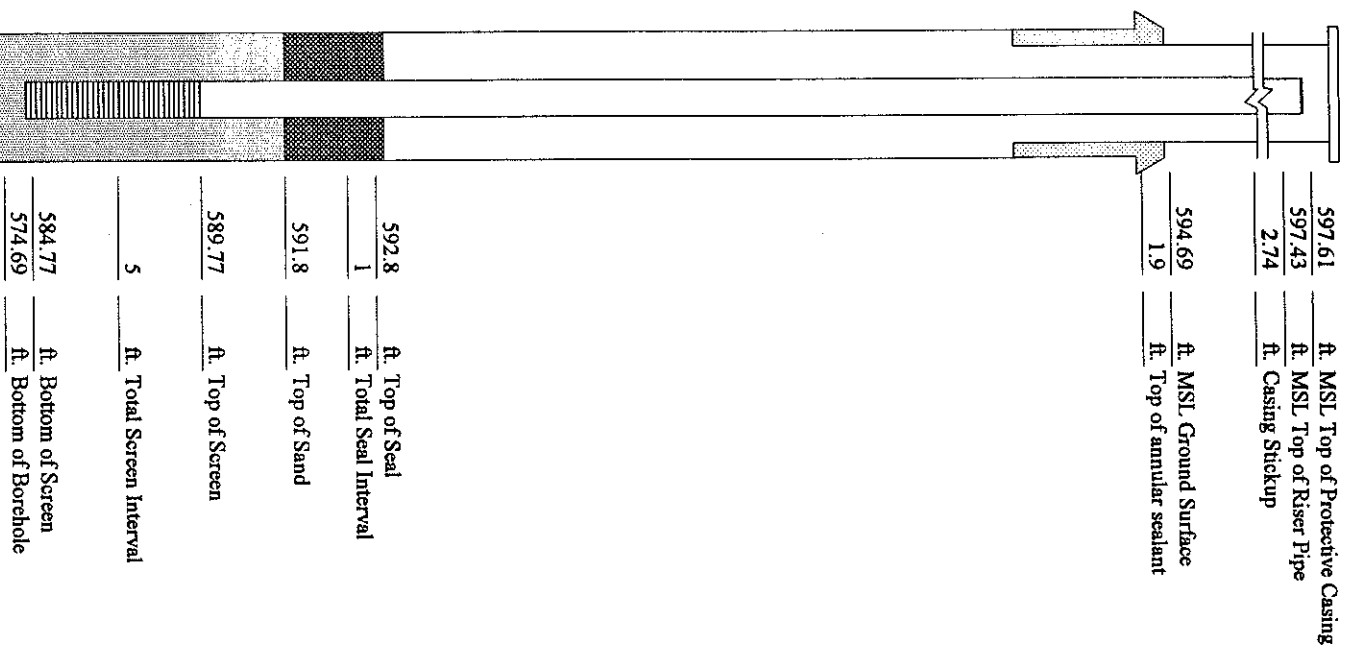
Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint	316			
Riser pipe above w.t.	316			
Riser pipe below w.t.	316			
Screen	316			
Coupling joint screen or riser	316			
Protective casing	3/4" steel			

Measurements

to .01 ft. (where applicable)

Riser pipe length	7.66'
Protective casing length	
Screen length	5'
Bottom of screen to end cap	4' at end of screen, 1.5" plug
Top of screen to first joint	No joints
Total length of casing	
Open slot size	10
# of openings in screen	13%
Diameter of borehole (in)	8
ID of riser pipe (in)	2



* Location relative to SW corner fence post on SK property

Completed by: Limmo-Tech, Inc.

Surveyed by: John Replik & Associates

Ill registration #



Illinois Environmental Protection Agency

Well Completion Report

Site #: IEPA ID No. 0316000053 County: Cook Well # MW-5
Site Name: Safety Kleen Chicago Recycle Center Grid Coordinate*: Northing 73' Easting -39'
Drilling Contractor: Mateco Date Drilling Started: 12/7/93
Driller: Bob Dyer/ Dave Bailey Geologist: Joyce Dunkin Date Completed: 12/7/93
Drilling Method: Hollow Stem Auger Drilling Fluids Type: None

Annular Space Details:

Elevations .01 ft.

Type of Surface Seal: Cement

Type of Annular Sealant: Bentonite Pellets

Amount of Cement: # of Bags: lbs. per bag
Amount of Bentonite: # of Bags: lbs. per bag

Type of Bentonite Seal (Granular, Pellet): 3/4" Pellets

Amount of Bentonite: # of Bags: 3 lbs. per bag 50

Type of Sand Pack: #7 quartz sand

Source of Sand:

Amount of Sand: # of Bags: 3 lbs. per bag 50

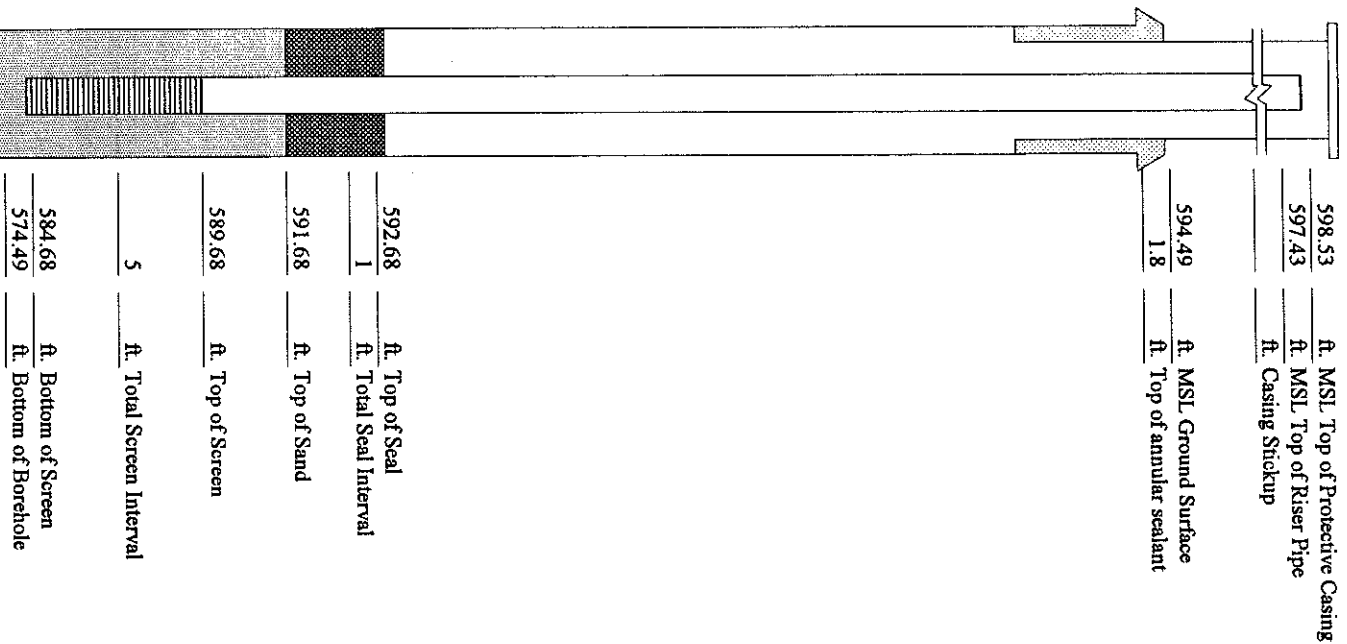
Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint	316			
Riser pipe above w.t.	316			
Riser pipe below w.t.	316			
Screen	316			
Coupling joint screen or riser	316			
Protective casing	3/4" steel			

Measurements

to .01 ft. (where applicable)

Riser pipe length	7.75
Protective casing length	
Screen length	5'
Bottom of screen to end cap	4" at end of screen, 1.5" plug
Top of screen to first joint	No joints
Total length of casing	
Screen slot size	10
% of openings in screen	13%
Diameter of borehole (in)	8
ID of riser pipe (in)	2



* Location relative to SW corner fence post on SK property

Completed by: Limno-Tech, Inc.

Surveyed by: John Rebik & Associates

Ill registration #



Illinois Environmental Protection Agency

Well Completion Report

Site #: IEPA ID No. 0316000053 County: Cook Well # MW-6
Site Name: Safety Kleen Chicago Recycle Center Grid Coordinate*: Northing 30' Easting 161'
Drilling Contractor: Mateco Date Drilling Started: 12/6/93
Driller: Bob Dwyer/ Dave Bailey Geologist: Joyce Dunkin Date Completed: 12/6/93
Drilling Method: Hollow Stem Auger Drilling Fluids Type: None

Annular Space Details:

Elevations .01 ft.

Type of Surface Seal: Cement

Type of Annular Sealant: Bentonite Clips

Amount of Cement: # of Bags: lbs. per bag
Amount of Bentonite: # of Bags: lbs. per bag

Type of Bentonite Seal (Granular, Pellet): 3/4" Pellets

Amount of Bentonite: # of Bags: 3 lbs. per bag 50

Type of Sand Pack: #7 quartz sand

Source of Sand:

Amount of Sand: # of Bags: 3 lbs. per bag 50

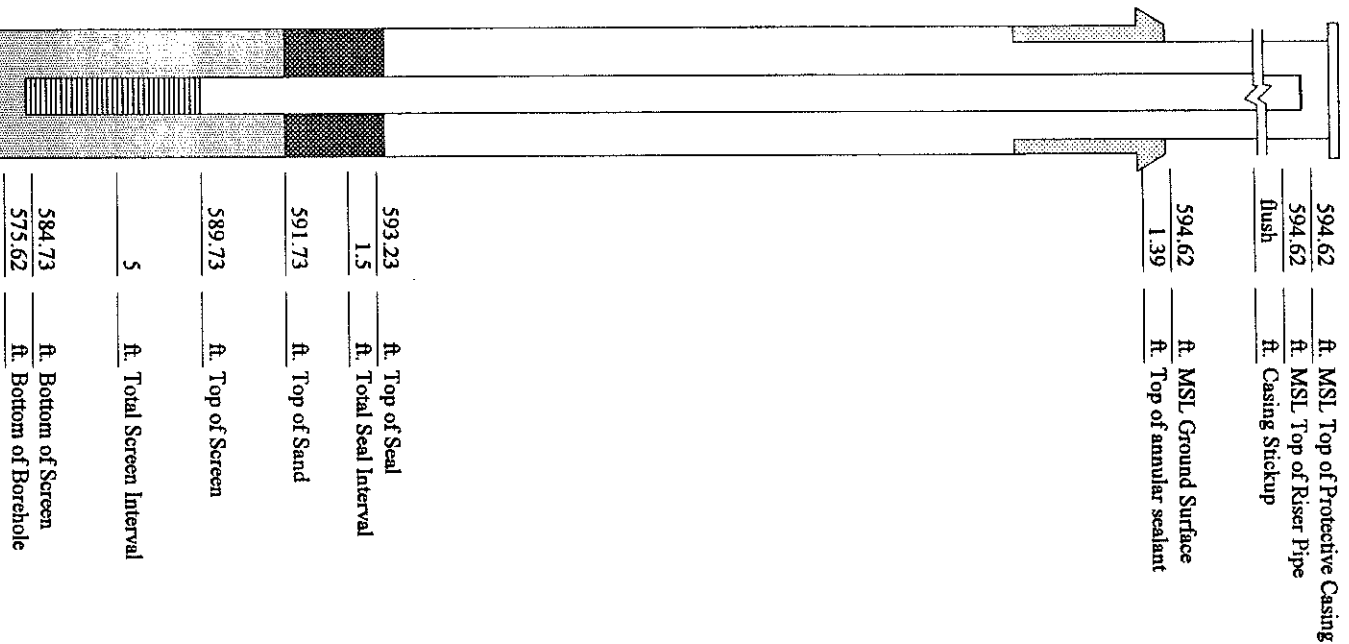
Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint	316			
Riser pipe above w.t.	316			
Riser pipe below w.t.	316			
Screen	316			
Coupling joint screen or riser	316			
Protective casing	3/4" steel			

Measurements

to .01 ft. (where applicable)

Riser pipe length	4.89'
Protective casing length	
Screen length	5'
Bottom of screen to end cap	4" at end of screen, 1.5" plug
Top of screen to first joint	No joints
Total length of casing	
Open slot size	10
% of openings in screen	13%
Diameter of borehole (in)	8
ID of riser pipe (in)	2



* Location relative to SW corner fence post on SK property

Completed by: Limno-Tech, Inc.

Surveyed by: John Rebik & Associates

Ill registration #



Illinois Environmental Protection Agency

Well Completion Report

Site #: IEPA ID No. 0316000053 County: Cook Well # MW-7
Site Name: Safety Klean Chicago Recycle Center Grid Coordinate*: Northing 89 Easting 183
Drilling Contractor: Mateco Date Drilling Started: 12/8/93
Driller: Bob Dryer/ Dave Bailey Geologist: Joyce Dunkin Date Completed: 12/8/93
Drilling Method: Hollow Stem Auger Drilling Fluids Type: None

Annular Space Details:

Elevations .01 ft.

Type of Surface Seal: Cement
Type of Annular Sealant: Bentonite Chips
Amount of Cement: # of Bags: lbs. per bag
Amount of Bentonite: # of Bags: lbs. per bag
Type of Bentonite Seal (Granular, Pellet): 3/4" Pellet
Amount of Bentonite: # of Bags: 3 lbs. per bag 50
Type of Sand Pack: #7 quartz sand
Source of Sand:
Amount of Sand: # of Bags: 3 lbs. per bag 50

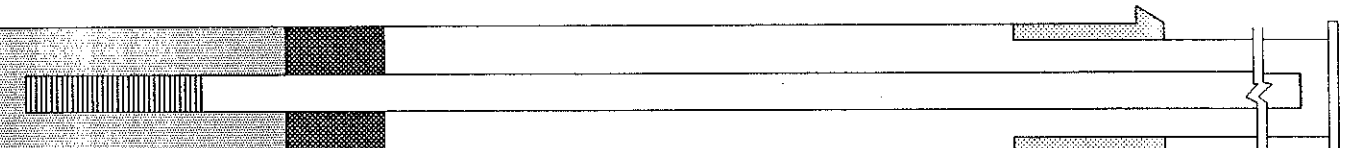
Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint	316			
Riser pipe above w.t.	316			
Riser pipe below w.t.	316			
Screen	316			
Coupling joint screen or riser	316			
Protective casing	3/4" steel			

Measurements

to .01 ft. (where applicable)

Riser pipe length	8.23
Protective casing length	
Screen length	5'
Bottom of screen to end cap	4" at end of screen, 1.5" plug
Top of screen to first joint	No joints
Total length of casing	
open slot size	10
of openings in screen	13%
Diameter of borehole (in)	8
ID of riser pipe (in)	2



597.91	ft. MSL Top of Protective Casing
597.78	ft. MSL Top of Riser Pipe
3.04	ft. Casing Stickup
594.74	ft. MSL Ground Surface
2.19	ft. Top of annular sealant
592.55	ft. Top of Seal
1	ft. Total Seal Interval
591.55	ft. Top of Sand
589.55	ft. Top of Screen
5	ft. Total Screen Interval
584.55	ft. Bottom of Screen
579.74	ft. Bottom of Borehole

* Location relative to SW corner fence post on SK property

Completed by: Limmo-Tech, Inc.

Surveyed by: John Rebih & Associates

Ill registration #



Illinois Environmental Protection Agency

Well Completion Report

Site #: IEPA ID No. 0316000053 County: Cook Well # MW-8
Site Name: Safety Kleen Chicago Recycle Center Grid Coordinate*: Northing 200 Easting 190

Drilling Contractor: Mateco Date Drilling Started: 12/8/93 Date Completed: 12/8/93
Driller: Bob Dryer/ Dave Bailey Geologist: Joyce Dunkin
Drilling Method: Hollow Stem Auger Drilling Fluids Type: None

Elevations .01 ft.

Annular Space Details:

Type of Surface Seal: Cement
Type of Annular Sealant: Bentonite Chips
Amount of Cement: # of Bags: lbs. per bag
Amount of Bentonite: # of Bags: lbs. per bag
Type of Bentonite Seal (Granular, Pellet): 3/4" Pellet
Amount of Bentonite: # of Bags: 3 lbs. per bag 50
Type of Sand Pack: #7 quartz sand
Source of Sand:
Amount of Sand: # of Bags: 3 lbs. per bag 50

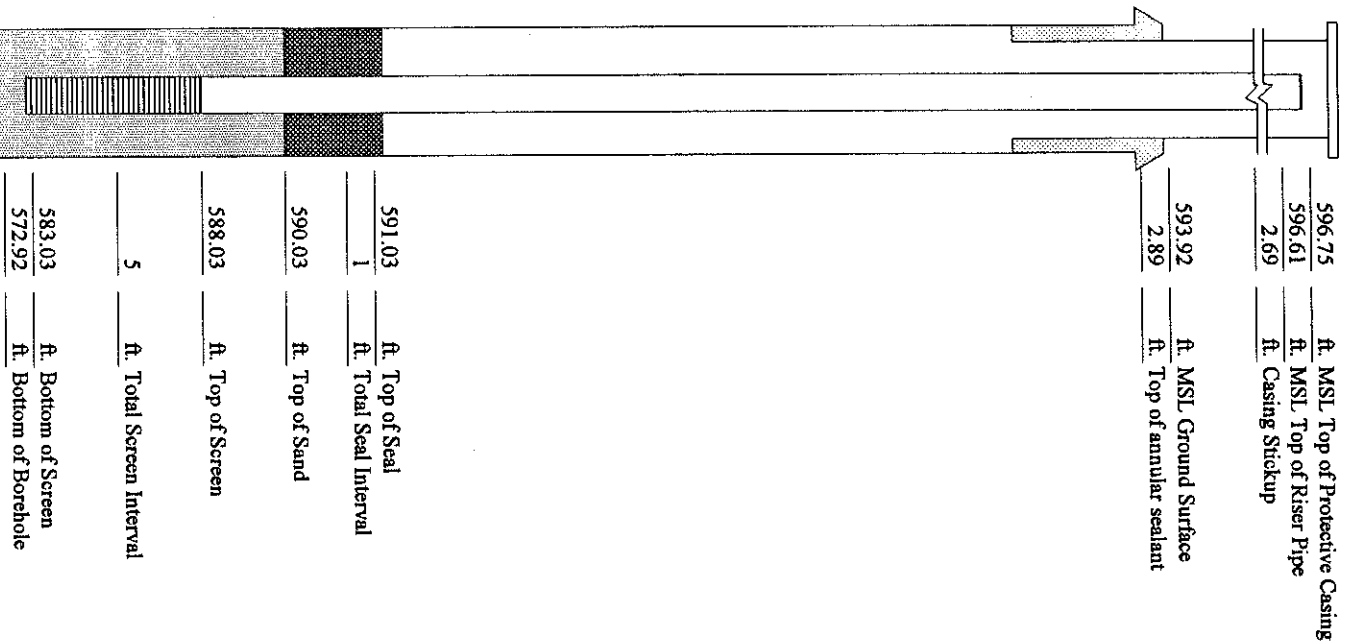
Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint	316			
Riser pipe above w.t.	316			
Riser pipe below w.t.	316			
Screen	316			
Coupling joint screen or riser	316			
Protective casing	3/4" steel			

Measurements

to .01 ft. (where applicable)

Riser pipe length	6.58
Protective casing length	
Screen length	5'
Bottom of screen to end cap	4" at end of screen, 1.5" plug
Top of screen to first joint	No joints
Total length of casing	
Screen slot size	10
" of openings in screen	13%
Diameter of borehole (in)	8
ID of riser pipe (in)	2



* Location relative to SW corner fence post on SK property

Completed by: Limno-Tech, Inc.

Surveyed by: John Rebik & Associates

Ill registration #



Illinois Environmental Protection Agency

Well Completion Report

Site #: IEPA ID No. 0316000053 County: Cook Well # MW-9
Site Name: Safety Kleen Chicago Recycle Center Grid Coordinate*: Northing 21 Easting 14
Drilling Contractor: Matco Date Drilling Started: 12/6/93 Date Completed: 12/6/93
Driller: Bob Dryer/ Dave Bailey Geologist: Joyce Dunkin
Drilling Method: Hollow Stem Auger Drilling Fluids Type: None

Annular Space Details:

Type of Surface Seal: Cement 596.7 ft. MSL Top of Protective Casing
Type of Annular Sealant: Bentonite Chips 596.72 ft. MSL Top of Riser Pipe
2.69 ft. Casing Stickup
Amount of Cement: # of Bags: lbs. per bag 594.03 ft. MSL Ground Surface
Amount of Bentonite: # of Bags: lbs. per bag 2.13 ft. Top of annular sealant
Type of Bentonite Seal (Granular, Pellet): 3/4" Pellet
Amount of Bentonite: # of Bags: 3 lbs. per bag 50
Type of Sand Pack: #7 quartz sand
Source of Sand:
Amount of Sand: # of Bags: 3 lbs. per bag 50

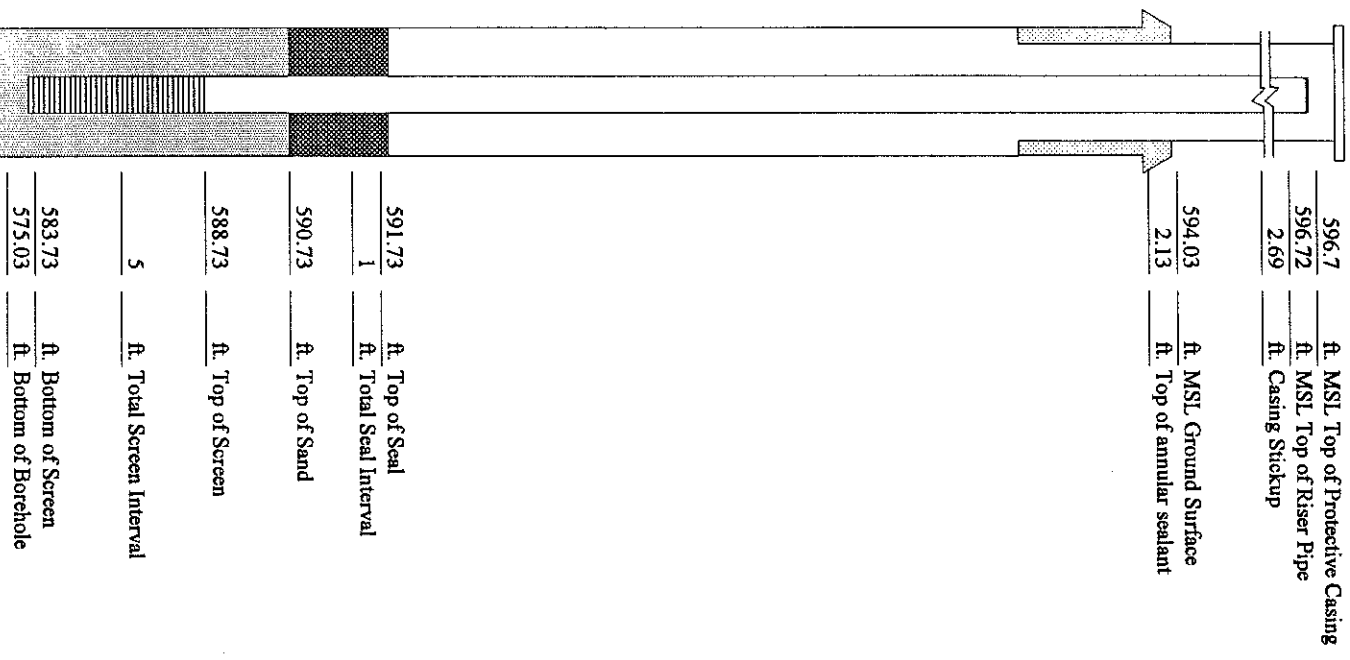
Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint	316			
Riser pipe above w.t.	316			
Riser pipe below w.t.	316			
Screen	316			
Coupling joint screen or riser	316			
Protective casing	3/4" steel			

Measurements

to .01 ft. (where applicable)

Riser pipe length	7.99
Protective casing length	
Screen length	5'
Bottom of screen to end cap	4" at end of screen, 1.5" plug
Top of screen to first joint	No joints
Total length of casing	
Screen slot size	10
# of openings in screen	13%
Diameter of borehole (in)	8
ID of riser pipe (in)	2



* Location relative to SW corner fence post on SK property

Completed by: Limno-Tech, Inc.

Surveyed by: John Rebik & Associates

Ill registration #



Illinois Environmental Protection Agency

Well Completion Report

Site #: IEPA ID No. 0316000053 County: Cook Well # MW-10
City Name: Safety Kleen Chicago Recycle Center Grid Coordinate*: Northing 155 Easting 167
Drilling Contractor: Matenco Date Drilling Started: 12/8/93
Driller: Bob Dryer/Dave Bailey Geologist: Joyce Dunkin Date Completed: 12/8/93
Drilling Method: Hollow Stem Auger Drilling Fluids Type: None

Annular Space Details:

Elevations .01 ft.

Type of Surface Seal: Cement

Type of Annular Sealant: Bentonite Chips

Amount of Cement: # of Bags: lbs. per bag
Amount of Bentonite: # of Bags: lbs. per bag

Type of Bentonite Seal (Granular, Pellet): 3/4" Pellet

Amount of Bentonite: # of Bags: 3 lbs. per bag 50

Type of Sand Pack: #7 quartz sand

Source of Sand:

Amount of Sand: # of Bags: 3 lbs. per bag 50

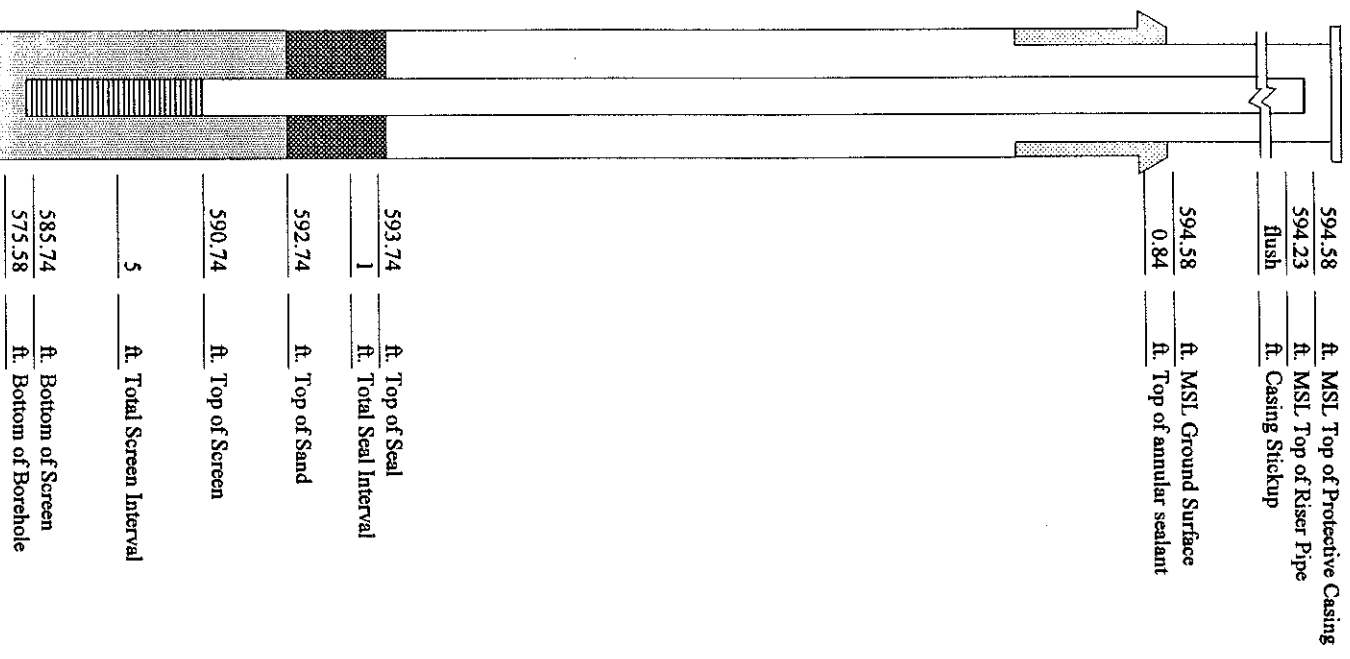
Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint	316			
Riser pipe above w.t.	316			
Riser pipe below w.t.	316			
Screen	316			
Coupling joint screen or riser	316			
Protective casing	3/4" steel			

Measurements

to .01 ft. (where applicable)

Riser pipe length	3.49
Protective casing length	
Screen length	5'
Bottom of screen to end cap	4" at end of screen, 1.5" plug
Top of screen to first joint	No joints
Total length of casing	
open slot size	10
# of openings in screen	13%
Diameter of borehole (in)	8
ID of riser pipe (in)	2



* Location relative to SW corner fence post on SK property

Completed by: Limno-Tech, Inc.

Surveyed by: John Rebik & Associates

Ill registration #

APPENDIX G:

Well Development Logs

LIMNO-TECH INC. WELL DEVELOPMENT FIELD LOG

LIMNO-TECH INC. WELL DEVELOPMENT FIELD LOG				WELL/BORING I.D.
				MW/4
PROJECT NAME	PROJECT CODE	INITIAL	DATE	SCREEN DEPTH
Safety-Kleen Chicago Recycle Center	SKSCH1, Task 6	JTP	12/16/93	12.68 ft. from TOC

WELL DEVELOPMENT/PURGING - METHOD/EQUIPMENT USED

[illegible]

COMMENTS:

LIMNO-TECH INC. WELL DEVELOPMENT FIELD LOG

PROJECT NAME	PROJECT CODE	INITIAL	DATE	SCREEN DEPTH
Safety-Kleen Chicago Recycle Center	SKCH1, Task 6	JTP	12/16/93	12.75 ft. from TOC

WELL DEVELOPMENT/PURGING - METHOD/EQUIPMENT USED

[illegible]

COMMENTS:

LIMNO-TECH INC. WELL DEVELOPMENT FIELD LOG

PROJECT NAME	PROJECT CODE	INITIAL	DATE	SCREEN DEPTH
Safety-Kleen Chicago Recycle Center	SKCH1, Task 6	JTP	12/17/93	9.53 ft. from TOC

WELL DEVELOPMENT/PURGING - METHOD/EQUIPMENT USED	
Disposable Bailer - Level C Safety Equipment	

[illegible]

COMMENTS:

WELLBORING I.D.

PROJECT NAME	PROJECT CODE	INITIALS	DATE	SCREEN DEPTH
Safety-Kleen Chicago Recycle Center	SKCH1, Task 6	SBB/JTP	12/9/93 - 12/21/199	13.23 ft. from TOC

WELL DEVELOPMENT/PURGING - METHOD/EQUIPMENT USED

Stainless Steel Bailor - Level B on 12/9/93; Disposable Bailor - Level C Safety Equipment through 12/21/93	
--	--

[illegible]

COMMENTS:

LIMNO-TECH INC. WELL DEVELOPMENT FIELD LOG

PROJECT NAME	PROJECT CODE	INITIAL	DATE	SCREEN DEPTH
Safety-Kleen Chicago Recycle Center	SKCH1, Task 6	JTP	12/17/93	13.58 ft. from TOC

WELL DEVELOPMENT/PURGING - METHOD/EQUIPMENT USED

[illegible]

COMMENTS:

LIMNO-TECH INC. WELL DEVELOPMENT FIELD LOG

LIMNO-TECH INC. WELL DEVELOPMENT FIELD LOG				WELLBORING I.D.	
				MW9	
PROJECT NAME	PROJECT CODE	INITIALS	DATE	SCREEN DEPTH	
Safety-Kleen Chicago Recycle Center	SKCH1, Task 6	SBB/JTP	12/9/93 - 12/21/1993	12.99 ft. from TOC	

WELL DEVELOPMENT/PURGING - METHOD/EQUIPMENT USED

[illegible]

COMMENTS:

LIMNO-TECH INC. WELL DEVELOPMENT FIELD LOG

PROJECT NAME	PROJECT CODE	INITIAL DATE	SCREEN DEPTH
Safety-Kleen Chicago Recycle Center	SKCH1, Task 6	JTP 12/17/93	8.49 ft. from TOC

WELL DEVELOPMENT/PURGING - METHOD/EQUIPMENT USED
Disposible Bailer - Level C Safety Equipment

[illegible]

COMMENTS:

APPENDIX H:

Well Head Screening and Groundwater Sampling Data

WATER LEVEL RECORD

(12-21)

Date: 12-16-93

ToC-BTH From ToC

[illegible]

GROUND-WATER SAMPLING FIELD LOG

Project Name <u>SAFETY/KREEN - CRC</u>		Code <u>SKCH-1</u>	By <u>STP</u>	Date <u>12-21-93</u>	Time <u>8:45</u>
Location: _____ _____ _____		Parameters: <u>8240/8260 - VOA</u> <u>8270 Semi Volatiles - BUA</u>			
Well Number: <u>WU-1</u>	Well Location: _____				
Lock Number: <u>2126</u>	Casing Material/Diameter: <u>Stairless - 8.09"</u>				
Pipe Ht. Above Ground: _____	Well Depth: _____				
Static Water Depth (From T.O.C.): <u>5.75'</u>					
Purge Equipment: <u>Disposable Bailers</u>					
Purge Volume Requirement (gal): <u>1.9</u>	Volume Purged: <u>1.5</u>				
Well Development / Pumping Characteristics: <u>0-1 gal - Slightly cloudy Brown - Bailed Dry - 12-20-93</u> <u>1-1.5 gal - Slightly cloudy Brown - Bailed Dry - 12-20-93</u>					
Decontamination Procedures: <u>All Sampling Equipment was Disposable</u>					
Sample Containers: <u>2 - VOC Vials - 1 Amber BUA Bottle</u>					
Sample Preservation: <u>VOCs - Hcl - BUA - None</u>					
Field Filtered (Y or N): <u>N</u> Method: _____					
Physical Appearance of Sample: <u>Slightly cloudy</u>					
Sample Numbers: <u>WU-1</u>					
Samples Delivered To: <u>WESTON Gulf Coast Labs</u>					
<u>Cooler Temp 32.5 °F</u>					
Comments: <u>Bailed Dry at 1.0 gal - Recharges</u> <u>very slowly - 1.5 gal Purged on 12-20-93</u> <u>by BDC - No further Purging -</u> <u>Sample collected 12-21-93 at 8:45</u> <u>and 11:30 AM - Let Recharge to Get Revisited vol)</u>					
Signature: _____					

GROUND-WATER SAMPLING FIELD LOG

Project Name <u>SAFETY KEENE - CRC</u>		Code <u>SKCH-1</u>	By <u>JTP</u>	Date <u>12-21-93</u>	Time <u>12:45</u>
Location: _____ _____		Parameters: <u>8240/8260-VOL</u> <u>8270-Semi Volatile (BVA)</u>			
Well Number: <u>MU-2</u>	Well Location: _____				
Lock Number: <u>2126</u> <small>No tags currently</small>	Casing Material/Diameter: <u>stainless-2.09</u>				
Pipe Ht. Above Ground: _____	Well Depth: _____				
Static Water Depth (From T.O.C.): <u>3.05</u>					
Purge Equipment: _____	Volume Purged: <u>1.5</u>				
Purge Volume Requirement (gal): <u>3.8</u>					
Well Development / Pumping Characteristics: <u>strong solvent odor</u>					
<u>0-1 gal - slightly cloudy grey</u> <u>temp - 8.8 / Cond - 3.43 / PH - 7.2 / Turb - 822</u>					
Decontamination Procedures: _____					
<u>All sample equipment was disposable - No Decon</u>					
Sample Containers: <u>2 - VOC-VIACS - 1 - A&A BVA B&HL</u>					
Sample Preservation: <u>VOC - HCL - BVA - Alone</u>					
Field Filtered (Y or N): <u>N</u>	Method: _____				
Physical Appearance of Sample: <u>Slightly cloudy grey</u>					
Sample Numbers: <u>MU-2</u>					
Samples Delivered To: <u>Weston Gulf Coast Labs</u>					
<u>Cooler Temp - 33.7°F</u>					
Comments: <u>BAILES Day After 2.5 gal</u>					
<u>7.5 gal Purged by BDL on 12-20-93</u>					
Signature: _____					

GROUND-WATER SAMPLING FIELD LOG

Project Name <u>SAEETY/KEEN - CRC</u>		Code <u>SKCH1</u>	By <u>JTP</u>	Date <u>12-21-93</u>	Time <u>9:20</u>
Location: _____ _____ _____		Parameters: <u>824b/8260 - V04</u> <u>8270-Semi Volumes (BNA)</u> _____			
Well Number: <u>NW-3</u>	Well Location: _____				
Lock Number: <u>2126</u>	Casing Material/Diameter: <u>Stainless - 2.09</u>				
Pipe Ht. Above Ground: _____	Well Depth: _____				
Static Water Depth (From T.O.C.): <u>2.83</u>					
Purge Equipment: <u>Disposable Bailer</u>					
Purge Volume Requirement (gal): <u>4.0</u>	Volume Purged: <u>2.5</u>				
Well Development / Pumping Characteristics: <u>0-1 gal - slightly cloudy - Turb - 20.1 / pH - 7.1 - / Cond - 4.88 / Temp 12.5</u> <u>1-2 gal - cloudy grey - Turb - N.R / pH 7.3 / Cond - 6.38 / Temp 14.3</u> <u>Sampled well at 9:20 - wet dry w/ 1000ml Togo - 8:13:45 Sample</u>					
Decontamination Procedures: <u>All Sampling Equipment was Disposable</u>					
Sample Containers: <u>2 VOC Vials - 1 Amber BNA Bottle</u>					
Sample Preservation: <u>VOC - Hcl - BNA - None</u>					
Field Filtered (Y or N): <u>N</u>	Method: _____				
Physical Appearance of Sample: <u>Slightly cloudy grey</u>					
Sample Numbers: <u>NW-3</u>					
Samples Delivered To: <u>WESTON Gulf Coast Labs</u>					
<u>Cooler Temp 32.8°F</u>					
Comments: <u>Bails Dry after 3.0 gal -</u>					
<u>10gal Rinsed From well By BDL on 12-20-93</u>					
<u>Black/grey color -</u>					
Signature: _____					

GROUND-WATER SAMPLING FIELD LOG

Project Name <u>SAFETY KLEEN - CRC</u>		Code <u>SKCH-1</u>	By <u>STD</u>	Date <u>12-21-93</u>	Time <u>10:15</u>
Location: _____ _____ _____		Parameters: <u>8240/8260 - VOC</u> <u>8270 - Semi Volatiles - (BVA)</u>			
Well Number: <u>MU-41</u>		Well Location: _____			
Lock Number: <u>3210</u>		Casing Material/Diameter: <u>Steel less - 2.09"</u>			
Pipe Ht. Above Ground: _____		Well Depth: _____			
Static Water Depth (From T.O.C.): <u>6.60'</u>					
Purge Equipment: <u>Disposable Bailers</u>		Volume Purged: <u>2.5 gal</u>			
Purge Volume Requirement (gal): <u>3.2</u>					
Well Development / Pumping Characteristics: <u>odor - solvent - smelled like Rughac</u> <u>Rug cleaner by Johnson way -</u>					
<u>0-1 gal - slightly cloudy - Ph-7.0 / Temp - 9.6 / cond - 11.19 / Turb - 36.2</u> <u>1-2 gal - slightly cloudy - Ph-7.0 / Temp - 11.2 / cond 11.19 / Turb - 29.1</u>					
Decontamination Procedures: <u>All Sampling Equipment was Disposable</u>					
Sample Containers: <u>2 VOC Vials - 1 Amber BVA Bottle</u>					
Sample Preservation: <u>VOC - HCL</u>		BVA - None			
Field Filtered (Y or N): <u>N</u>		Method: _____			
Physical Appearance of Sample: <u>slightly cloudy</u>					
Sample Numbers: <u>MU-41</u>					
Samples Delivered To: <u>WESTON GULF Coast LABS</u>					
<u>Cooler Temp - 32.7°F</u>					
Comments: <u>Bailed Dry After 3.5 gal -</u> <u>40 gal. Purged from well on 12-20-93 by STD</u>					
Signature: _____					

GROUND-WATER SAMPLING FIELD LOG

Project Name <u>SAFETY/KEENE - CRC</u>		Code <u>SKCH-1</u>	By <u>JTP</u>	Date <u>12-20-93</u>	Time <u>16:30</u>
Location: _____ _____ _____		Parameters: <u>8240/8260 - VOC</u> <u>8270 Semi Volatiles</u> <u>(BVA)</u>			
Well Number: <u>MU-5</u>		Well Location: _____			
Lock Number: <u>3210</u>		Casing Material/Diameter: <u>Stainless-2.09"</u>			
Pipe Ht. Above Ground: _____		Well Depth: _____			
Static Water Depth (From T.O.C.): <u>6.91'</u>					
Purge Equipment: <u>Disposable Bailor</u>		Volume Purged: <u>6.5</u>			
Purge Volume Requirement (gal): <u>3.1</u>					
Well Development / Pumping Characteristics: <u>(Propane odor to well)</u>					
<u>0-1 gal - slightly cloudy yellow tint - 1-65gal slightly cloudy - No Color</u>					
<u>Bailed Dry at 6.5 gal - Turbidity - 23.4 Cond-188 pH 7.2</u>					
Decontamination Procedures: <u>All Sampling Equipment and Disposable</u>					
Sample Containers: <u>2 VOC Vials - 1 Amber BVA Bottle</u>					
Sample Preservation: <u>VOC - HCL - BVA - None -</u>					
Field Filtered (Y or N): <u>N</u> Method: _____					
Physical Appearance of Sample: <u>clear</u>					
Sample Numbers: <u>MU-5</u>					
Samples Delivered To: <u>WESTON Gulf Coast Labs</u>					
<u>Cooler Temp - 33.5°F</u>					
Comments: <u>Sharp Edges to wells - cut string to</u> <u>Bailer several times -</u>					
Signature: _____					

GROUND-WATER SAMPLING FIELD LOG

Project Name <u>SAFETY KLEEN - CRE</u>		Code <u>SKCH-1</u>	By <u>STP</u>	Date <u>12-21-93</u>	Time <u>9:50</u>
Location: 		Parameters: <u>8240/8260 - VOA</u> <u>8270-Semi-Volatile-BVAH</u>			
Well Number: <u>MU-6</u>	Well Location:				
Lock Number: <u>3210</u>	Casing Material/Diameter: <u>Stainless-2.09</u>				
Pipe Ht. Above Ground:	Well Depth:				
Static Water Depth (From T.O.C.): <u>3.26</u>					
Purge Equipment: <u>Disposable Bailor</u>					
Purge Volume Requirement (gal): <u>3.3</u>	Volume Purged: <u>2.5 gal</u>				
Well Development / Pumping Characteristics: <u>0-1 gal - slightly cloudy-yellow Twt - Turb - 40.4 / pH - 7.5 / Cond - 7.98 / Temp - 10.5</u> <u>1-2 gal - slightly cloudy -</u>					
Decontamination Procedures: <u>All Sampling Equipment was Disposable</u>					
Sample Containers: <u>2 - VOC Vials - 1 - Amber BVA B.HL</u>					
Sample Preservation: <u>VOC - HCL -</u>	BVA - None				
Field Filtered (Y or N): <u>N</u>	Method:				
Physical Appearance of Sample: <u>slightly cloudy - yellow Twt</u>					
Sample Numbers: <u>MU-6</u>					
Samples Delivered To: <u>WESTON GULF COAST LABS</u> <u>Cooler Temp - 32.8°F</u>					
Comments: <u>Bailed Dry after 3.5 gal</u> <u>5.0 gal Purged from well on 12-20-93 by BDC</u>					
Signature: _____					

GROUND-WATER SAMPLING FIELD LOG

Project Name <u>SAFETY KEEN - CRC</u>		Code <u>SKCH1</u>	By <u>JTP</u>	Date <u>12-21-93</u>	Time <u>11:50</u>
Location: _____ _____ _____		Parameters: <u>8240/8260 - VOA</u> <u>8270 - Semi Volatiles - BVA</u> _____			
Well Number: <u>YU-7</u>	Well Location: _____				
Lock Number: <u>3210</u>	Casing Material/Diameter: <u>steel - 2.09'</u>				
Pipe Ht. Above Ground: _____	Well Depth: _____				
Static Water Depth (From T.O.C.): <u>6.78'</u>					
Purge Equipment: <u>Disposable Bailen</u>					
Purge Volume Requirement (gal): <u>3.4</u>		Volume Purged: <u>2.5</u>			
Well Development / Pumping Characteristics: <u>0-1 gal - slightly cloudy - yellow T.2t</u> <u>Temp - 8.4 Cond - 5.06 - pH - 7.3 Turb 31.9</u> <u>1-2 gal - slightly cloudy - yellow - Temp - 7.5 / Cond - 5.09 / pH - 7.3 / Turb 17.2</u>					
Decontamination Procedures: <u>All Sampling Equipment was Disposable - No Decon</u>					
Sample Containers: <u>2 - VOC/VHCS - 1 - Amber - BVA Bottle</u>					
Sample Preservation: <u>VOC - HCL -</u>		<u>BVA - Above</u>			
Field Filtered (Y or N): <u>N</u>		Method: _____			
Physical Appearance of Sample: <u>slightly cloudy</u>					
Sample Numbers: <u>YU-7</u>					
Samples Delivered To: <u>Western Gulf Coast Labs -</u>					
<u>Cooler Temp - 33.5 °F</u>					
Comments: <u>Bailer Dry at 4.0 gal</u>					
<u>5.5 gal Purged by BOC on 12-20-93</u>					
Signature: _____					

GROUND-WATER SAMPLING FIELD LOG

Project Name <u>SAFETY KEEN - CRC</u>		Code <u>SKCH-1</u>	By <u>JTP</u>	Date <u>12-21-93</u>	Time <u>12:25</u>
Location: _____ _____ _____		Parameters: <u>8240/8260 - VOC</u> <u>8270 - Semi Volatiles (BNA)</u> _____			
Well Number: <u>NW-8</u>	Well Location: _____				
Lock Number: <u>3210</u>	Casing Material/Diameter: <u>Steel - 2.09</u>				
Pipe Ht. Above Ground: _____	Well Depth: _____				
Static Water Depth (From T.O.C.): <u>5.34</u>					
Purge Equipment: <u>Disposable Bailer</u>	Volume Purged: <u>8.0</u>				
Purge Volume Requirement (gal): <u>4.3</u>					
Well Development / Pumping Characteristics: <u>(Strong Propane Odor)</u>					
<u>0-3 gal - slightly cloudy - Temp - 8.3 / Cond - 7.20 / pH - 7.0 / Turb - 28.7</u>					
<u>3-5 gal - slightly cloudy - Temp - 8.8 / Cond - 6.50 / pH - 7.1 / Turb - 26.5</u>					
<u>5-7 gal - slightly cloudy - Temp - 8.8 / Cond - 6.75 / pH - 7.1 / Turb - 25.4</u>					
Decontamination Procedures: _____					
<u>All Sampling Equipment was Disposable - No Decon</u>					
Sample Containers: <u>2 - VOC VIALS</u> <u>1 - Analy BNA Bottle</u>					
Sample Preservation: <u>VOC - HCE</u> <u>BNA - None</u>					
Field Filtered (Y or N): <u>N</u>		Method: _____			
Physical Appearance of Sample: <u>slightly cloudy</u>					
Sample Numbers: <u>NW-8</u>					
Samples Delivered To: <u>Acston Golf Course Labs</u>					
<u>Cooler Temp - 33.7 °F</u>					
Comments: <u>Recovers well -</u>					
<u>Sharp edges on wells - Cots & strings -</u>					
<u>5 gal Rinsed from well by BDC on 12-20-93</u>					
Signature: _____					

GROUND-WATER SAMPLING FIELD LOG

Project Name <u>SAFETY KEEN - CRC</u>		Code <u>SKCH-1</u>	By <u>JTP</u>	Date <u>12-21-98</u>	Time <u>8:30</u>
Location: _____ _____ _____		Parameters: <u>8240/8260/-V04</u> <u>8270 - Semi Volatiles</u> <u>(BVA)</u>			
Well Number: <u>HU-9</u>	Well Location: _____				
Lock Number: <u>3210</u>	Casing Material/Diameter: <u>stainless - 2.09"</u>				
Pipe Ht. Above Ground: _____	Well Depth: _____				
Static Water Depth (From T.O.C.): <u>5.85'</u>					
Purge Equipment: <u>Disposable Bailer</u>					
Purge Volume Requirement (gal): <u>3.8</u>	Volume Purged: <u>12-20-10.0</u> <u>3.0</u>				
Well Development / Pumping Characteristics: <u>Bailed Dry at 3.5 gal -</u>					
<u>0-1 gal - slightly cloudy - Temp - 9.4°C / Cond - 1.67 / Turb - 20.4 / pH - 7.6</u>					
<u>1-2 gal - slightly cloudy - Temp - 7.7°C / Cond - 1.72 / Turb - 20.1 / pH - 7.5</u>					
<u>Sampled at 3.0 gal - at 8:30</u>					
Decontamination Procedures: _____					
<u>All Sampling Equipment was Disposable</u>					
Sample Containers: <u>2 - VOC - 1 BVA - Arsen</u>					
Sample Preservation: <u>HCL</u> - <u>None</u>					
Field Filtered (Y or N): <u>N</u> Method: _____					
Physical Appearance of Sample: <u>clear</u>					
Sample Numbers: <u>HU-9</u>					
Samples Delivered To: <u>Western Gulf Coast Labs</u>					
<u>Cooler Temp 32.3°F</u>					
Comments: <u>Bailed Dry at Approx 3.5 gal</u>					
<u>10 gals. Purged from well on 12-20 by BDC</u>					
Signature: _____					

GROUND-WATER SAMPLING FIELD LOG

Project Name <u>SAEETY KLEEN - CRC</u>		Code <u>SMCH-1</u>	By <u>STP</u>	Date <u>12-21-93</u>	Time <u>10:50</u>
Location: _____ _____ _____		Parameters: <u>8240/8260 - VOC</u> <u>8270 - Semi Volatiles (BVA)</u> _____			
Well Number: <u>MW-10</u>	Well Location: _____				
Lock Number: <u>3210</u>	Casing Material/Diameter: <u>stainless-2.09"</u>				
Pipe Ht. Above Ground: _____	Well Depth: _____				
Static Water Depth (From T.O.C.): <u>3.05</u>					
Purge Equipment: <u>Disposable Bailer</u>					
Purge Volume Requirement (gal): <u>2.9</u>	Volume Purged: <u>8.0</u>				
Well Development / Pumping Characteristics: <u>0.5 gal - cloudy gray - Turb - 272/PH - 7.2/Cond - 6.80/Temp - 10.5</u> <u>5.7 gal - slightly cloudy - Turb - 31.9/PH - 7.2/Cond - 6.75/Temp - 10.2</u>					
Decontamination Procedures: <u>All Sampling Equipment was Disposable - No Decon</u>					
Sample Containers: <u>2 - VOC VIALS - 1 Amber BVA Bottle</u>					
Sample Preservation: <u>VOC - HCL - BVA - None</u>					
Field Filtered (Y or N): <u>N</u> Method: _____					
Physical Appearance of Sample: <u>clear</u>					
Sample Numbers: <u>MW-8</u>					
Samples Delivered To: <u>WESTON GULF Coast LABS</u>					
<u>Cooler Temp 32.9°F</u>					
Comments: <u>Recharges Well</u>					
<u>5 gal Purged by BDC on 12-20-93</u>					
<u>Duplicate Taken AT MW-10</u>					
Signature: _____					

WATER LEVEL RECORD

Project Name:

Safety Kleen- CRC

Project Code: SKCHI

Initials: JTP

Date:

2/14/94

[illegible]

GROUND-WATER SAMPLING FIELD LOG

Project Name Safety Kleen -CRC	Code SKCHI	By JTP	Date 2/14/94	Time 13:45
Location: From Tank Pad Well (SE) 34.6'E	Parameters: 8240/8260-VOA	8270 Semi Volatile - BNA		
Well Number: MW-1	Well Location:			
Lock Number:	Casing Material/Diameter: stainless-2.09"			
Pipe Ht. Above Ground:	Well Depth:			
Static Water Depth (From T.O.C.): 4.31'				
Purge Equipment: Disposable Bailer				
Purge Volume Requirement (gal): 26	Volume Purged: 1.125			
Well Development / Pumping Characteristics:				
15:55 1.0 gal. pH:7.4	Cond.4.79	Temp.11.7 °C	Turb.243	cloudy light brown,solvent odor, bailed dry after 1.0 gal
18:05 1.125gal	pH-	Cond.-	Temp.-	Turb.- cloudy brown, bailed dry after 0.125gal
19:30 1.125gal	-	-	-	Dry
Decontamination Procedures: All sampling equipment was disposable				
Sample Containers: 2 VOC vials, 1 amber BNA bottle				
Sample Preservation: VOC'S - HCL, BNA- none				
Field Filtered (Y or N): N	Method:			
Physical Appearance of Sample:				
Sample Numbers: MW-1				
Samples Delivered To: Weston Gulf Coast Labs				
Comments: weather: 18:20 dark, windy, gust (10-20 S.W.), 3.8 °C				
sampled well 2/15/94 8:50				
8:50 Produced approx. 750 ml				
12:00 Produced approx. 250 ml - need 2000 ml more				
16:50 Produced approx. 500 ml - need 1700 ml more				
17:30 Produced approx. 200 ml - need 1200 ml more				
2/16/94 8:40 Produced approx. 1200 ml -end of sample				
Signature:				

GROUND-WATER SAMPLING FIELD LOG

Project Name Safety Kleen -CRC		Code SKCHI	By JTP	Date 2/14/94	Time 16:05
Location: From Fence Post 3' North of Yellow Sign - 1' N - 5.8' E of Fence		Parameters: 8240/8260-VOA 8270 Semi Volatile - BNA			
Well Number: MW-2		Well Location:			
Lock Number:		Casing Material/Diameter: stainless-2.09"			
Pipe Ht. Above Ground:		Well Depth:			
Static Water Depth (From T.O.C.): 3.99'					
Purge Equipment: Disposable Bailor					
Purge Volume Requirement (gal): 3.3		Volume Purged: 3.5			
Well Development / Pumping Characteristics:					
16:12 1.5 gal. pH:6.9 Cond.:5.98 Temp.7.1°C Turb.:N.R. very cloudy gray - strong odor, rugbee smell - bailed dry 1.5 gal					
18:00 2.5gal pH:7.0 Cond.:4.77 Temp.6.5°C Turb.:192 cloudy grey, bailed dry after 1.0 gal					
19:35 3.5gal pH:6.9 Cond.:4.58 Temp.5.5°C Turb.:170 cloudy grey - to slightly cloudy bailed dry after 1.0 gal					
Decontamination Procedures: All sampling equipment was disposable					
Sample Containers: 2 VOC vials, 1 amber BNA bottle					
Sample Preservation VOC'S - HCL, BNA- none					
Field Filtered (Y or N): N		Method:			
Physical Appearance of Sample:					
Sample Numbers: MW-2					
Samples Delivered To: Weston Gulf Coast Labs					
Comments: sampled well 2/15/94 9:30					
Signature:					

GROUND-WATER SAMPLING FIELD LOG

Project Name Safety Kleen -CRC	Code SKCHI	By JTP	Date 2/15/94	Time 9:15
Location: From Fence Post 3' North of Yellow Sign - 1' N - 5.8' E of Fence		Parameters: 8240/8260-VOA 8270 Semi Volatile - BNA		
Well Number: MW-2		Well Location:		
Lock Number:		Casing Material/Diameter:		
Pipe Ht. Above Ground:		Well Depth:		
Static Water Depth (From T.O.C.):				
Purge Equipment: Disposable Bailor				
Purge Volume Requirement (gal): 3.3		Volume Purged: 4.5		
Well Development / Pumping Characteristics: 9:30 1.0 gal. pH:6.8 Cond.:5.69 Temp.:2.9°C Turb.:257 cloudy gray - strong solvent odor				
Decontamination Procedures: All sampling equipment was disposable				
Sample Containers: 2 VOC vials, 1 amber BNA bottle				
Sample Preservation VOC's - HCL, BNA- none				
Field Filtered (Y or N): N		Method:		
Physical Appearance of Sample:				
Sample Numbers: MW-2				
Samples Delivered To: Weston Gulf Coast Labs				
Comments: sampled well 2/15/94 9:30				
9:30 produced about 1 gal - need lots more				
11:30 produced about 1 gal - need 3 more gal				
12:45 produced about 1 gal - need 2 gal more				
14:00 produced about 1 gal - 1 more gal needed				
16:45 produced about 1.5 gal - more than enough - end sample				
Signature:				

GROUND-WATER SAMPLING FIELD LOG

Project Name Safety Kleen -CRC	Code SKCHI	By JTP	Date 2/14/94	Time 16:20
Location: From Yellow Support Post (center) 8' E		Parameters: 8240/8260-VOA 8270 Semi Volatile - BNA		
Well Number: MW-3	Well Location:			
Lock Number:	Casing Material/Diameter: stainless-2.09"			
Pipe Ht. Above Ground:	Well Depth:			
Static Water Depth (From T.O.C.): 3.81'				
Purge Equipment: Disposable Bailer				
Purge Volume Requirement (gal): 3.5	Volume Purged: 2.15			
Well Development / Pumping Characteristics: 16.24 1.5 gal. pH:7.2 Cond.:5.95 Temp.:10.2°C Turb.:N.R. very cloudy muddy gray - very slight odor, bailed dry after 1.5 gal				
17:50 2.0 gal pH- pH- Cond.- Temp.- Turb.-	cloudy grey, bailed dry after 0.5 gal			
19:50 2.15 gal pH- pH- Cond.- Temp.- Turb.-	cloudy grey, bailed dry after 0.15 gal			
Decontamination Procedures: All sampling equipment was disposable				
Sample Containers: 2 VOC vials, 1 amber BNA bottle				
Sample Preservation VOC'S - HCL, BNA- none				
Field Filtered (Y or N): N	Method:			
Physical Appearance of Sample:				
Sample Numbers: MW-3				
Samples Delivered To: Weston Gulf Coast Labs				
Comments:				
Signature:				

GROUND-WATER SAMPLING FIELD LOG

Project Name Safety Kleen -CRC		Code SKCHI	By JTP	Date 2/15/94	Time 10:20
Location:		Parameters: 8240/8260-VOA 8270 Semi Volatile - BNA			
Well Number: MW-3		Well Location:			
Lock Number:		Casing Material/Diameter:			
Pipe Ht. Above Ground:		Well Depth:			
Static Water Depth (From T.O.C.):					
Purge Equipment: Disposable Baller					
Purge Volume Requirement (gal): 3.5		Volume Purged: 3			
Well Development / Pumping Characteristics:					
10:30 0.75 gal. pH:7.9		Cond.:12.93		Temp.:10.8°C Turb.:271	
				cloudy gray brown - bailed dry after 0.75 gal	
12:05 0.8 gal	pH-	Cond.-	Temp.-	Turb.-	cloudy grey, bailed dry after 1/4 bailer
16:55 0.925 gal	pH-	Cond.-	Temp.-	Turb.-	cloudy grey, bailed dry after 1/2 bailer 0.125 gal
Decontamination Procedures: All sampling equipment was disposable					
Sample Containers: 2 VOC vials, 1 amber BNA bottle					
Sample Preservation VOC'S - HCL, BNA- none					
Field Filtered (Y or N): N		Method:			
Physical Appearance of Sample:					
Sample Numbers: MW-3					
Samples Delivered To: Weston Gulf Coast Labs					
Comments:					
9:15 Filled VOC's, still need about 2.5 liters					
11:30 Produced approx. 50 ml					
Signature:					

GROUND-WATER SAMPLING FIELD LOG

Project Name Safety Kleen -CRC		Code SKCHI	By JTP	Date 2/15/94	Time 15:45
Location: _____ _____ _____		Parameters: 8240/8260-VOA 8270 Semi Volatile - BNA _____			
Well Number: MW-4		Well Location: _____			
Lock Number: _____		Casing Material/Diameter: stainless-2.09"			
Pipe Ht. Above Ground: _____		Well Depth: _____			
Static Water Depth (From T.O.C.): 7.56'					
Purge Equipment: Disposable Bailer					
Purge Volume Requirement (gal): 2.7		Volume Purged: 4			
Well Development / Pumping Characteristics: _____					
15:53 1.5 gal. pH:7.1 Cond.:10.50 Temp.:7.7°C Turb.:41.3 slightly cloudy - solvent odor - rugbee odor - bailed dry at 3.0 gal					
16:10 4.0 gal pH:7.1 Cond.:10.61 Temp.:7.5°C Turb.:63.8 slightly cloudy - surged throughout bailed dry at 1.0 gal.					
Decontamination Procedures: All sampling equipment was disposable					
Sample Containers: 2 VOC vials, 1 amber BNA bottle					
Sample Preservation VOCs - HCL, BNA- none					
Field Filtered (Y or N): N		Method: _____			
Physical Appearance of Sample: _____					
Sample Numbers: MW-4					
Samples Delivered To: Weston Gulf Coast Labs					

Comments: well sampled 2/15/94 18:25					

Signature: _____					

GROUND-WATER SAMPLING FIELD LOG

Project Name Safety Kleen -CRC	Code SKCHI	By JTP	Date 2/15/94	Time 15:35
Location: _____ _____ _____	Parameters: 8240/8260-VOA 8270 Semi Volatile - BNA _____			
Well Number: MW-5	Well Location: _____			
Lock Number: _____	Casing Material/Diameter: stainless-2.09"			
Pipe Ht. Above Ground: _____	Well Depth: _____			
Static Water Depth (From T.O.C.): 8.13'				
Purge Equipment: Disposable Bailer				
Purge Volume Requirement (gal): 2.5	Volume Purged: 4			
Well Development / Pumping Characteristics: 15:40 1.5 gal. pH:7.4 Cond.:1.82 Temp.:6.2°C Turb.:17.7 slightly cloudy - bailed dry at 3.0 gal 16:00 4.0 gal pH:7.5 Cond.:2.04 Temp.:5.6°C Turb.:57.0 slightly cloudy - surged throughout bailed dry at 1.0 gal.				
Decontamination Procedures: All sampling equipment was disposable				
Sample Containers: 2 VOC vials, 1 amber BNA bottle				
Sample Preservation VOC'S - HCL, BNA- none				
Field Filtered (Y or N): N	Method: _____			
Physical Appearance of Sample: _____				
Sample Numbers: MW-5				
Samples Delivered To: Western Gulf Coast Labs				
Comments: well sampled 2/15/94 18:20				
_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ Signature: _____				

GROUND-WATER SAMPLING FIELD LOG

Project Name Safety Kleen -CRC		Code SKCHI	By JTP	Date 2/14/94	Time
Location: From Pad Corner (SW) 23W, -32'S of Fence		Parameters: 8240/8260-VOA 8270 Semi Volatile - BNA			
Well Number: MW-6	Well Location:				
Lock Number:	Casing Material/Diameter: stainless-2.09"				
Pipe Ht. Above Ground:	Well Depth:				
Static Water Depth (From T.O.C.): 3.04'					
Purge Equipment: Disposable Baller					
Purge Volume Requirement (gal): 3.5	Volume Purged: NA				
Well Development / Pumping Characteristics:					
19.40 0.0 gal. pH-	Cond.-	Temp.-	Turb.-	No Access - Ice build up on inside of casing - bailer won't fit	
Decontamination Procedures: All sampling equipment was disposable					
Sample Containers: 2 VOC vials, 1 amber BNA bottle					
Sample Preservation:					
Field Filtered (Y or N):					Method:
Physical Appearance of Sample:					
Sample Numbers:					
Samples Delivered To:					
Comments:					
Signature:					

GROUND-WATER SAMPLING FIELD LOG

Project Name Safety Kleen -CRC		Code SKCHI	By JTP	Date 2/15/94	Time 12:10
Location: _____		Parameters: 8240/8260-VOA			
_____		8270 Semi Volatile - BNA			
_____		_____			
Well Number: MW-7		Well Location: _____			
Lock Number: _____		Casing Material/Diameter: stainless-2.09"			
Pipe Ht. Above Ground: _____		Well Depth: _____			
Static Water Depth (From T.O.C.): 7.00'					
Purge Equipment: Disposable Bailor		Volume Purged: 4			
Purge Volume Requirement (gal): 3.3					
Well Development / Pumping Characteristics: _____					
12:20 3.0 gal. pH:7.1 Cond.:10.11 Temp.:5.5°C Turb.:42.3 slightly cloudy - yellow tint, bailed dry after 3.0 gal					
13:45 4.0 gal pH:7.0 Cond.:7.95 Temp.:7.0°C Turb.:27.4 slightly cloudy - yellow tint, bailed dry after 1.0 gal					
Decontamination Procedures: All sampling equipment was disposable					
Sample Containers: 2 VOC vials, 1 amber BNA bottle					
Sample Preservation VOC'S - HCL, BNA- none					
Field Filtered (Y or N): N		Method: _____			
Physical Appearance of Sample: _____					
Sample Numbers: MW-7					
Samples Delivered To: Weston Gulf Coast Labs					
Comments: well sampled 2/15/94 16:35					

Signature: _____					

GROUND-WATER SAMPLING FIELD LOG

Project Name	Code	By	Date	Time
Safety Klean -CRC	SKCHI	JTP	2/14/94	18:25

Location: <u>From Fence Post 3' North of Yellow</u> <u>Sign - 1' N - 5.8' E of Fence</u>		Parameters: <u>8240/8260-VOA</u> <u>8270 Semi Volatile - BNA</u>	
Well Number: <u>MW-8</u>		Well Location: _____	
Lock Number: _____		Casing Material/Diameter: <u>stainless-2.09"</u>	
Pipe Ht. Above Ground: _____		Well Depth: _____	
Static Water Depth (From T.O.C.): <u>5.98'</u>			
Purge Equipment: <u>Disposable Bailor</u>		Volume Purged: <u>10</u>	
Purge Volume Requirement (gal): <u>4</u>			
Well Development / Pumping Characteristics: _____			
<u>18:40 5.0 gal. pH:7.1</u>		<u>Cond.:7.58 Temp.:7.0°C Turb.:65.4</u> cloudy to slightly cloud 0-2 slightly cloudy after 2.0 gal, solvent odo - propane	
<u>18:50 7.5 gal pH:7.1</u>		<u>Cond.:7.29 Temp.:7.2°C Turb.:107</u> slightly cloudy	
<u>19:00 10 gal pH:7.1</u>		<u>Cond.:7.12 Temp.:6.5°C Turb.:124</u> slightly cloudy	
Decontamination Procedures: <u>All sampling equipment was disposable</u>			
Sample Containers: <u>2 VOC vials, 1 amber BNA bottle</u>			
Sample Preservation <u>VOC'S - HCL, BNA- none</u>			
Field Filtered (Y or N): <u>N</u>		Method: _____	
Physical Appearance of Sample: _____			
Sample Numbers: <u>MW-8</u>			
Samples Delivered To: <u>Weston Gulf Coast Labs</u>			
Comments: <u>well sampled 2/14/94 19:10</u>			
Signature: _____			

GROUND-WATER SAMPLING FIELD LOG

Project Name Safety Kleen -CRC		Code SKCHI	By JTP	Date 2/15/94	Time 13:30
Location: _____ _____ _____		Parameters: 8240/8260-VOA 8270 Semi Volatile - BNA _____			
Well Number: MW-9	Well Location: _____				
Lock Number: _____	Casing Material/Diameter: stainless-2.09"				
Pipe Ht. Above Ground: _____	Well Depth: _____				
Static Water Depth (From T.O.C.): 6.95'					
Purge Equipment: Disposable Bailer	Volume Purged: 4				
Purge Volume Requirement (gal): 3.2					
Well Development / Pumping Characteristics: _____					
13:35 2.0 gal. pH:7.6	Cond.:1.84	Temp.:7.1°C	Turb.:91.9	slightly cloudy light brown - bailed dry after 2.0 gal	
14:10 4.0 gal pH:7.5	Cond.:1.73	Temp.:8.6°C	Turb.:46.7	slightly cloudy light brown - bailed dry after 2.0 gal - surged 2 min.	
Decontamination Procedures: All sampling equipment was disposable					
Sample Containers: 2 VOC vials, 1 amber BNA bottle					
Sample Preservation VOC'S - HCL, BNA- none					
Field Filtered (Y or N): N	Method: _____				
Physical Appearance of Sample: _____					
Sample Numbers: MW-9	_____				
Samples Delivered To: Weston Gulf Coast Labs	_____				

Comments: well sampled 2/15/94 17:15					

Signature: _____					

GROUND-WATER SAMPLING FIELD LOG

Project Name Safety Kleen -CRC	Code SKCHI	By JTP	Date 2/14/94	Time 16:40
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Location: <u>From Pad Corner (NW) 46.5S, 19.6W</u>	Parameters: <u>8240/8260-VOA</u> <u>8270 Semi Volatile - BNA</u>
_____	_____
_____	_____

Well Number: <u>MW-10</u>	Well Location: _____
Lock Number: _____	Casing Material/Diameter: <u>stainless-2.09"</u>
Pipe Ht. Above Ground: _____	Well Depth: _____

Static Water Depth (From T.O.C.): <u>4.61'</u>
Purge Equipment: <u>Disposable Bailer</u>
Purge Volume Requirement (gal): <u>2.1</u> Volume Purged: <u>11</u>

Well Development / Pumping Characteristics:
<u>16:50 3.5 gal. pH:7.2 Cond.-6.59 Temp.-4.2°C Turb.-124 very cloudy gray - 0-1 gal cleared to slightly cloudy after 1 gal - Solvent odor - Propane</u>

<u>17:05 6.0 gal pH:7.1 Cond.4.67 Temp.4.1°C Turb.168 cloudy light grey</u>
<u>17:15 8.0 gal pH:7.2 Cond.7.67 Temp.4.2°C Turb.61.5 slightly cloudy</u>
<u>17:25 10.0 gal pH:7.2 Cond.7.57 Temp.3.9°C Turb.60.1 slightly cloudy</u>
<u>17:30 11.0 gal pH Cond. Temp. Turb. slightly cloudy</u>

Decontamination Procedures: <u>All sampling equipment was disposable</u>
--

Sample Containers: <u>2 VOC vials, 1 amber BNA bottle</u>
Sample Preservation: <u>VOCs - HCL, BNA- none</u>
Field Filtered (Y or N): <u>N</u> Method: _____
Physical Appearance of Sample: _____
Sample Numbers: <u>MW-10</u>
Samples Delivered To: <u>Weston Gulf Coast Labs</u>

Comments: <u>well sampled 2/14/94 at 17:35</u>

Signature: _____

APPENDIX I:

Slug Test Data and Calculations

EVALUATION OF FEBRUARY 16, 1994 BALDOWN TEST DATA
Safety-Kleen Chicago Recycle Center
Monitoring Well MW-2, Bailer Rising Head Test

Application of Bowers-Rice Method to Determine Hydraulic Conductivity (K).

Bowers-Rice Equations for Fully Penetrating Wells in an Unconfined Aquifer:

(reference: Bowers, Rice, A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells, Water Resources Research, Vol. 12, No. 3, June, 1976.)

$$K = [rc^2 2 \ln(Re/rw) / 2L] [(1/r) \ln(y_o/yt)]$$

$$\ln(Re/rw) = 1/[1.1 \ln(H/rw) + C/L/rw]$$

where:

K = hydraulic conductivity (length/time)

rc = well casing radius (length)

Re = effective radius over which drawdown/recovery is dissipated (length)

rw = radius of casing plus thickness of gravel envelope or developed zone (length)

L = height of screen or perforated zone in well casing (length)

t = time of a given static measurement during drawdown/recovery

Y_o = initial drawdown relative to static water level after slug withdrawal (length)

Y_t = water level displacement relative to static water level after a given time, t (length)

H = distance from bottom of well screen to water table (length)

C = dimensionless parameter that is a function of L/rw

D = saturated aquifer thickness (length)

Given:

rc = 0.0833 feet

rw = 0.2188 feet

L = 4.625 feet

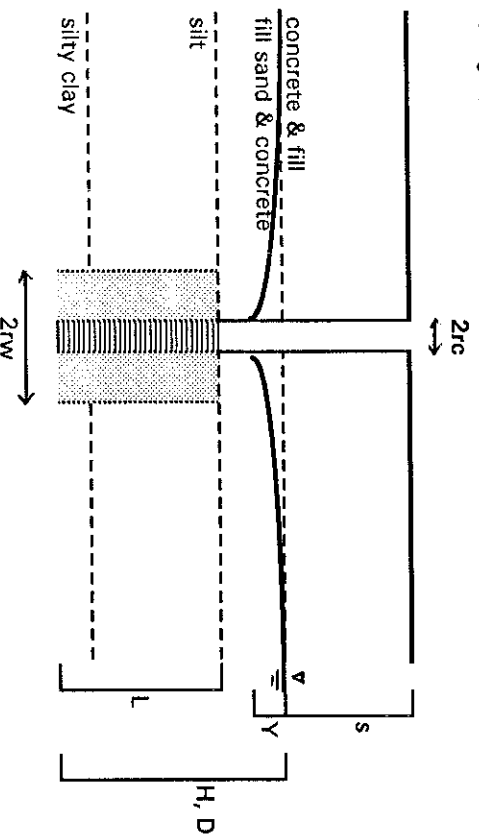
Y_o = 0.5 feet

H = 6 feet

D = 6 feet

s = 3.42 feet

where: s = initial static level in well



Geometry of MW2

$$L/rw = 21.14$$

therefore: C = 1.75 (see Figure 3)

solving for $\ln(Re/rw)$:

$$\ln(Re/rw) = 2.4098$$

from Figure 1, the water level displacement = 0.1 feet when t = 60 minutes; therefore:
Y_t = 0.1 ft t = 60 minutes

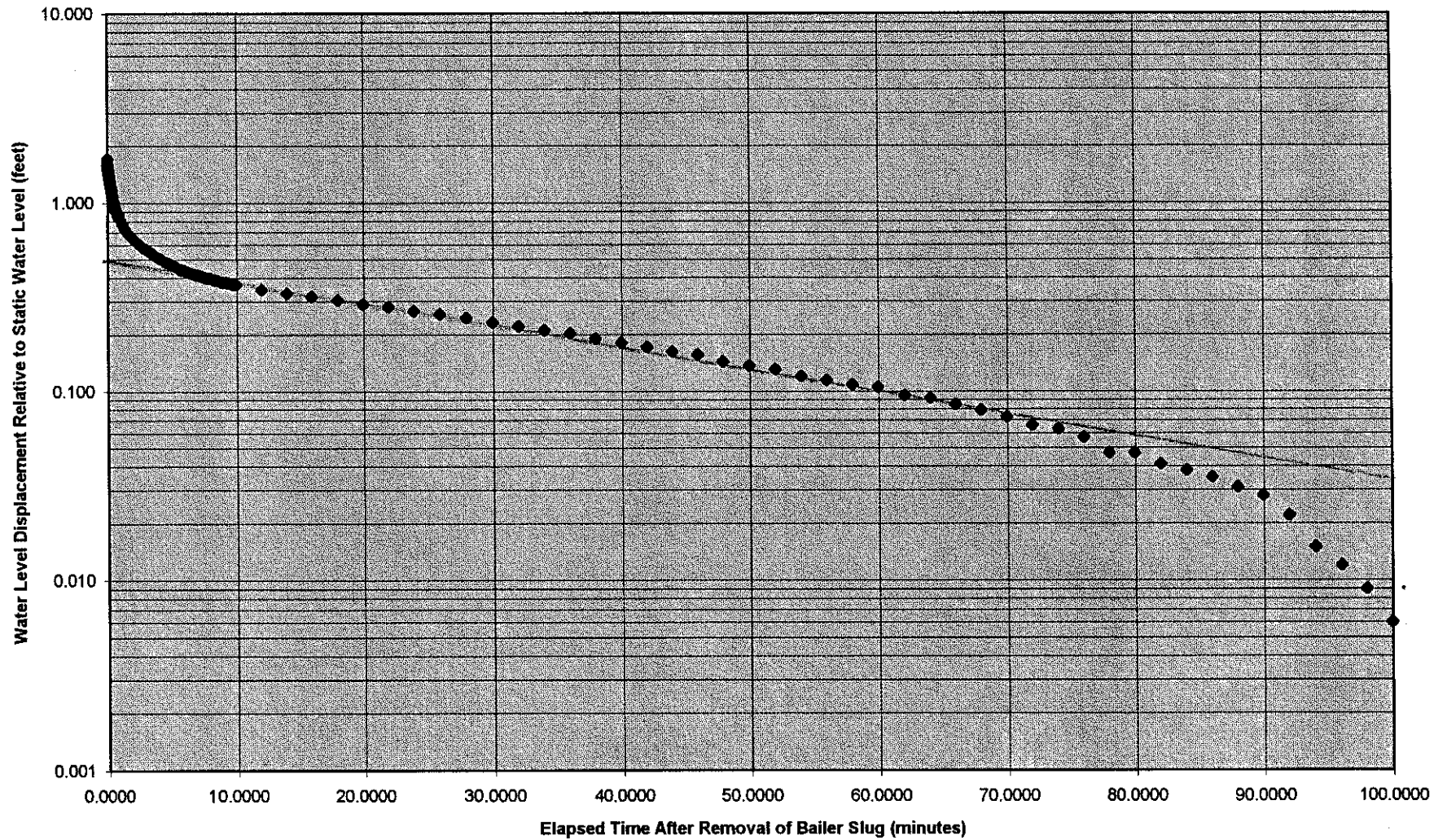
$$(1/t) \ln(Y_o/Y_t) = 0.02682 \quad (1/\text{minutes})$$

K =	4.85E-05	ft/min
=	2.46E-05	cm/sec

February 16, 1994 Rising Head Test Data from MW-2, Safety-Kleen Chicago Recycle Center

initial static water level (below TOC) = 3.42 feet @ 11:51
test start time = 11:51
test stop time = 13:31

Safety-Kleen Chicago Recycle Center, Bailer Rising Head Test in MW-2
Test 4 Step 0, February 16, 1994



February 16, 1994 Rising Head Test Data from MW-2, Safety-Kleen Chicago Recycle Center

initial static water level (below TOC) = 3.42 feet @ 11:51
test start time = 11:51
test stop time = 13:31

Time (min)	yt (ft)	Time (min)	yt (ft)	Time (min)	yt (ft)	Time (min)	yt (ft)
0.0000	1.71	0.1833	1.31	0.6600	0.91	8.3600	0.39
0.0033	1.61	0.1866	1.30	0.6766	0.91	8.5600	0.39
0.0066	1.59	0.1900	1.30	0.6933	0.90	8.7600	0.38
0.0100	1.58	0.1933	1.30	0.7100	0.89	8.9600	0.38
0.0133	1.57	0.1966	1.29	0.7266	0.89	9.1600	0.38
0.0166	1.56	0.2000	1.29	0.7433	0.89	9.3600	0.38
0.0200	1.56	0.2033	1.28	0.7600	0.88	9.5600	0.37
0.0233	1.55	0.2066	1.28	0.7766	0.87	9.7600	0.37
0.0266	1.54	0.2100	1.27	0.7933	0.87	9.9600	0.37
0.0300	1.53	0.2133	1.27	0.8100	0.86	11.9600	0.35
0.0333	1.52	0.2166	1.27	0.8266	0.86	13.9600	0.33
0.0366	1.54	0.2200	1.26	0.8433	0.85	15.9600	0.32
0.0400	1.50	0.2233	1.26	0.8600	0.85	17.9600	0.31
0.0433	1.53	0.2266	1.26	0.8766	0.84	19.9600	0.29
0.0466	1.51	0.2300	1.25	0.8933	0.84	21.9600	0.28
0.0500	1.50	0.2333	1.25	0.9100	0.88	23.9600	0.27
0.0533	1.49	0.2366	1.24	0.9266	0.83	25.9600	0.26
0.0566	1.48	0.2400	1.24	0.9433	0.82	27.9600	0.25
0.0600	1.48	0.2433	1.24	0.9600	0.82	29.9600	0.23
0.0633	1.47	0.2466	1.23	1.1600	0.77	31.9600	0.22
0.0666	1.47	0.2500	1.23	1.3600	0.73	33.9600	0.21
0.0700	1.46	0.2533	1.23	1.5600	0.70	35.9600	0.20
0.0733	1.45	0.2566	1.22	1.7600	0.67	37.9600	0.19
0.0766	1.45	0.2600	1.22	1.9600	0.65	39.9600	0.18
0.0800	1.45	0.2633	1.22	2.1600	0.63	41.9600	0.17
0.0833	1.44	0.2666	1.21	2.3600	0.61	43.9600	0.16
0.0866	1.44	0.2700	1.21	2.5600	0.60	45.9600	0.16
0.0900	1.43	0.2733	1.20	2.7600	0.58	47.9600	0.14
0.0933	1.43	0.2766	1.20	2.9600	0.57	49.9600	0.14
0.0966	1.42	0.2800	1.20	3.1600	0.56	51.9600	0.13
0.1000	1.42	0.2833	1.19	3.3600	0.54	53.9600	0.12
0.1033	1.41	0.2866	1.19	3.5600	0.53	55.9600	0.11
0.1066	1.41	0.2900	1.19	3.7600	0.52	57.9600	0.11
0.1100	1.40	0.2933	1.18	3.9600	0.51	59.9600	0.11
0.1133	1.40	0.3100	1.17	4.1600	0.50	61.9600	0.10
0.1166	1.39	0.3266	1.15	4.3600	0.49	63.9600	0.09
0.1200	1.39	0.3433	1.13	4.5600	0.48	65.9600	0.09
0.1233	1.38	0.3600	1.11	4.7600	0.48	67.9600	0.08
0.1266	1.38	0.3766	1.10	4.9600	0.47	69.9600	0.07
0.1300	1.38	0.3933	1.08	5.1600	0.46	71.9600	0.07
0.1333	1.37	0.4100	1.07	5.3600	0.46	73.9600	0.06
0.1366	1.37	0.4266	1.05	5.5600	0.45	75.9600	0.06
0.1400	1.36	0.4433	1.04	5.7600	0.44	77.9600	0.05
0.1433	1.36	0.4600	1.03	5.9600	0.44	79.9600	0.05
0.1466	1.35	0.4766	1.01	6.1600	0.43	81.9600	0.04
0.1500	1.35	0.4933	1.00	6.3600	0.43	83.9600	0.04
0.1533	1.34	0.5100	0.99	6.5600	0.42	85.9600	0.04
0.1566	1.34	0.5266	0.98	6.7600	0.42	87.9600	0.03
0.1600	1.33	0.5433	0.96	6.9600	0.41	89.9600	0.03
0.1633	1.33	0.5600	0.96	7.1600	0.41	91.9600	0.02
0.1666	1.33	0.5766	0.95	7.3600	0.41	93.9600	0.02
0.1700	1.32	0.5933	0.94	7.5600	0.40	95.9600	0.01
0.1733	1.32	0.6100	0.93	7.7600	0.40	97.9600	0.01
0.1766	1.31	0.6266	0.92	7.9600	0.40	99.9600	0.01
0.1800	1.31	0.6433	0.92	8.1600	0.39		

EVALUATION OF FEBRUARY 15, 1994 BALDOWN TEST DATA

Safety-Kleen Chicago Recycle Center

Monitoring Well MW-8, Bailor Falling Head Test (TOS0)

Application of Bouwers-Rice Method to Determine Hydraulic Conductivity (K).

Bouwers-Rice Equations for Fully Penetrating Wells in an Unconfined Aquifer:

(reference: Bouwers, Rice, A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells, Water Resources Research, Vol. 12, No. 3, June, 1976.)

$$K = [rc^2 2 \ln(Re/rw) / 2L] [(1/t) \ln(y_o/y_t)]$$

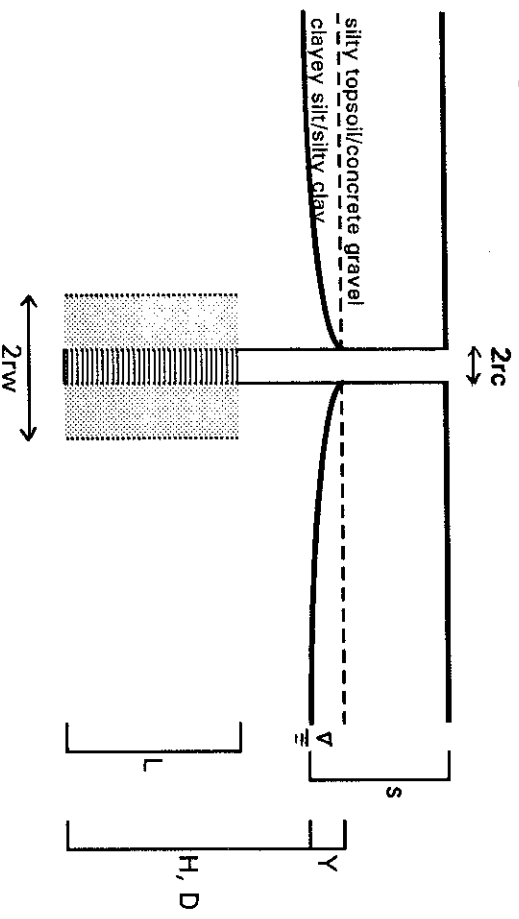
$$\ln(Re/rw) = 1/[1.1/\ln(H/rw) + C/(L/rw)]$$

where:

- K = hydraulic conductivity (length/time)
- rc = well casing radius (length)
- Re = effective radius over which drawdown/recovery is dissipated (length)
- rw = radius of casing plus thickness of gravel envelope or developed zone (length)
- L = height of screen or perforated zone in well casing (length)
- t = time of a given static measurement during drawdown/recovery
- Y_o = initial water level displacement relative to static water level after slug submersion (length)
- Y_t = water level displacement relative to static water level after a given time, t (length)
- H = distance from bottom of well screen to water table (length)
- C = dimensionless parameter that is a function of L/rw
- D = saturated aquifer thickness (length)

Given:	rc =	0.0833	feet
	rw =	0.3438	feet
	L =	4.625	feet
	Y _o =	0.952	feet
	H =	7.47	feet
	D =	7.47	feet
	s =	3.42	feet

where: s = initial static level in well



Geometry of MW8

$$L/rw = 13.45$$

therefore: C = 1.75 (see Figure 3)

solving for $\ln(Re/rw)$:

$$\ln(Re/rw) = 2.0517$$

from Figure 1, the water level displacement = 0.1 feet when t = 60 minutes; therefore:

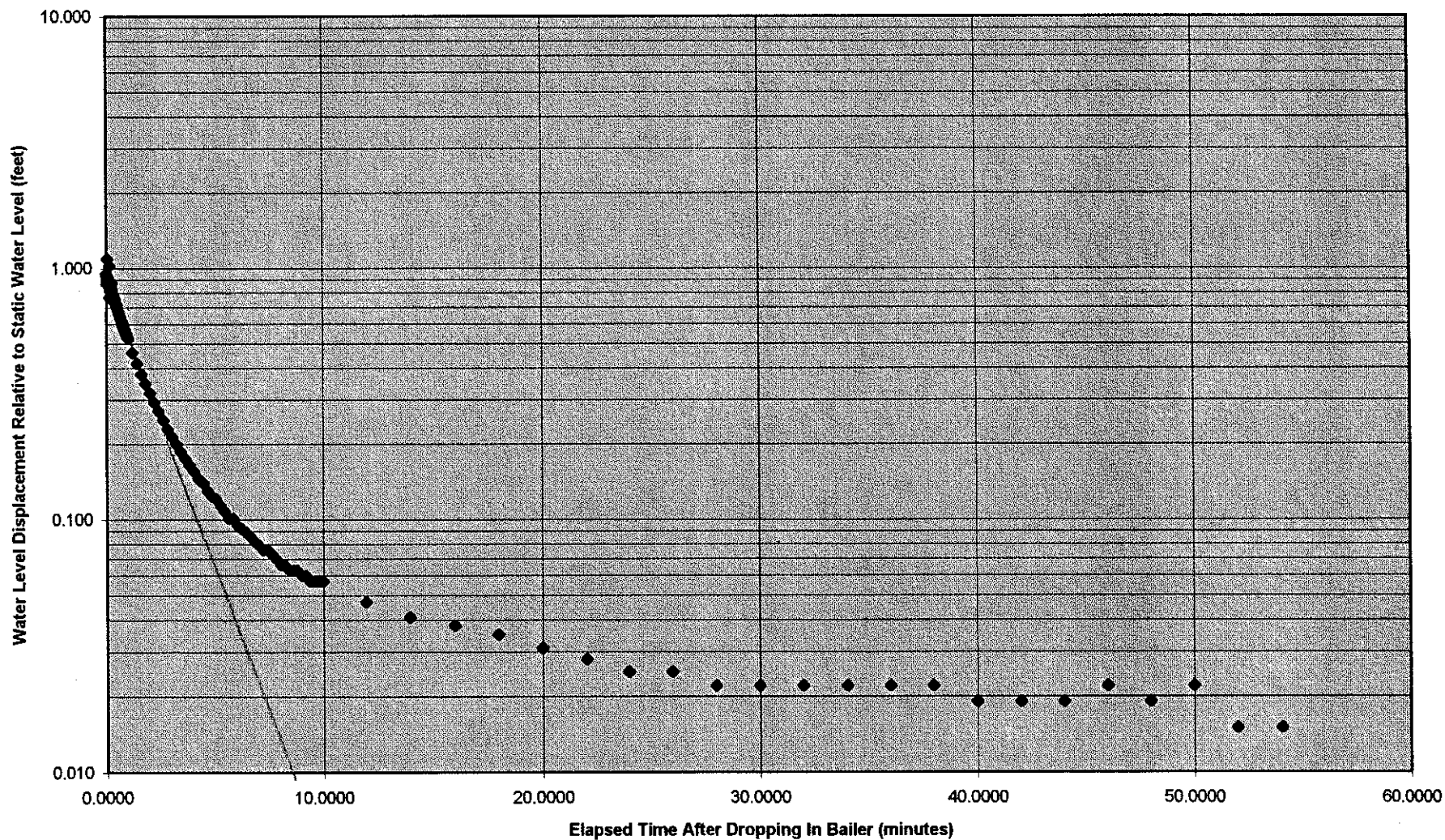
$$Y_t = 0.32 \text{ ft} \quad t = 2 \text{ minutes}$$

$$(1/t) \ln(Y_o/Y_t) = 0.54512 \text{ (1/minutes)}$$

$$K = 8.39E-04 \text{ ft/min}$$

$$= 4.26E-04 \text{ cm/sec}$$

Safety-Kleen Chicago Recycle Center, Bailer Falling Head Test in MW-8
Test 0 Step 0, February 15, 1994



February 15, 1994 Falling Head Test Data from MW-8, Safety-Kleen Chicago Recycle Center

Initial static water level (below TOC) = 6.11 feet @ 08:20
 test start time = 9:41
 test stop time = 10:45

Time (min)	yt (ft)	Time (min)	yt (ft)	Time (min)	yt (ft)	Time (min)	yt (ft)
0.0000	0.95	0.1733	0.86	0.4000	0.74	4.2000	0.15
0.0033	0.95	0.1766	0.83	0.4166	0.73	4.4000	0.14
0.0066	0.95	0.1800	0.83	0.4333	0.72	4.6000	0.13
0.0100	0.95	0.1833	0.86	0.4500	0.71	4.8000	0.12
0.0133	0.94	0.1866	0.84	0.4666	0.72	5.0000	0.12
0.0166	0.94	0.1900	0.83	0.4833	0.70	5.2000	0.11
0.0200	0.94	0.1933	0.84	0.5000	0.69	5.4000	0.11
0.0233	0.94	0.1966	0.84	0.5166	0.68	5.6000	0.10
0.0266	0.94	0.2000	0.83	0.5333	0.68	5.8000	0.10
0.0300	0.93	0.2033	0.84	0.5500	0.67	6.0000	0.10
0.0333	0.87	0.2066	0.82	0.5666	0.67	6.2000	0.09
0.0366	0.90	0.2100	0.83	0.5833	0.66	6.4000	0.09
0.0400	1.09	0.2133	0.83	0.6000	0.65	6.6000	0.09
0.0433	0.86	0.2166	0.82	0.6166	0.65	6.8000	0.08
0.0466	0.92	0.2200	0.84	0.6333	0.64	7.0000	0.08
0.0500	0.94	0.2233	0.81	0.6500	0.63	7.2000	0.08
0.0533	0.92	0.2266	0.82	0.6666	0.62	7.4000	0.08
0.0566	0.90	0.2300	0.87	0.6833	0.62	7.6000	0.07
0.0600	0.92	0.2333	0.88	0.7000	0.61	7.8000	0.07
0.0633	0.91	0.2366	0.75	0.7166	0.61	8.0000	0.07
0.0666	0.90	0.2400	0.84	0.7333	0.61	8.2000	0.07
0.0700	0.91	0.2433	0.82	0.7500	0.60	8.4000	0.06
0.0733	0.91	0.2466	0.80	0.7666	0.59	8.6000	0.06
0.0766	0.90	0.2500	0.81	0.7833	0.59	8.8000	0.06
0.0800	0.90	0.2533	0.81	0.8000	0.58	9.0000	0.06
0.0833	0.90	0.2566	0.80	0.8166	0.58	9.2000	0.06
0.0866	0.89	0.2600	0.80	0.8333	0.57	9.4000	0.06
0.0900	0.89	0.2633	0.80	0.8500	0.57	9.6000	0.06
0.0933	0.89	0.2666	0.80	0.8666	0.56	9.8000	0.06
0.0966	0.89	0.2700	0.80	0.8833	0.56	10.0000	0.06
0.1000	0.89	0.2733	0.80	0.9000	0.55	12.0000	0.05
0.1033	0.89	0.2766	0.80	0.9166	0.55	14.0000	0.04
0.1066	0.89	0.2800	0.79	0.9333	0.54	16.0000	0.04
0.1100	0.88	0.2833	0.79	0.9500	0.54	18.0000	0.04
0.1133	0.88	0.2866	0.79	0.9666	0.53	20.0000	0.03
0.1166	0.88	0.2900	0.79	0.9833	0.53	22.0000	0.03
0.1200	0.88	0.2933	0.79	1.0000	0.53	24.0000	0.03
0.1233	0.88	0.2966	0.79	1.0000	0.46	26.0000	0.03
0.1266	0.87	0.3000	0.79	1.4000	0.42	28.0000	0.02
0.1300	0.87	0.3033	0.78	1.6000	0.38	30.0000	0.02
0.1333	0.87	0.3066	0.78	1.8000	0.35	32.0000	0.02
0.1366	0.87	0.3100	0.78	2.0000	0.32	34.0000	0.02
0.1400	0.87	0.3133	0.78	2.2000	0.29	36.0000	0.02
0.1433	0.86	0.3166	0.78	2.4000	0.27	38.0000	0.02
0.1466	0.77	0.3200	0.77	2.6000	0.25	40.0000	0.02
0.1500	1.02	0.3233	0.77	2.8000	0.23	42.0000	0.02
0.1533	0.87	0.3266	0.77	3.0000	0.21	44.0000	0.02
0.1566	0.82	0.3300	0.77	3.2000	0.20	46.0000	0.02
0.1600	0.86	0.3333	0.77	3.4000	0.19	48.0000	0.02
0.1633	0.88	0.3500	0.75	3.6000	0.18	50.0000	0.02
0.1666	0.84	0.3666	0.75	3.8000	0.17	52.0000	0.02
0.1700	0.85	0.3833	0.76	4.0000	0.16	54.0000	0.02

EVALUATION OF FEBRUARY 15, 1994 BALDOWN TEST DATA

Safety-Kleen Chicago Recycle Center

Monitoring Well MW-8, Bailor Rising Head Test (TOS1)

Application of Bouwers-Rice Method to Determine Hydraulic Conductivity (K).

Bouwers-Rice Equations for Fully Penetrating Wells in an Unconfined Aquifer:

(reference: Bouwers, Rice, A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells, Water Resources Research, Vol. 12, No. 3, June, 1976.)

$$K = [rc^2 2ln(Re/rw)/2L][1/t]ln(yo/Yt)$$

$$ln(Re/rw) = 1/[1.1/ln(H/rw) + C/(L/rw)]$$

where:

K = hydraulic conductivity (length/time)

rc = well casing radius (length)

Re = effective radius over which drawdown/recovery is dissipated (length)

rw = radius of casing plus thickness of gravel envelope or developed zone (length)

L = height of screen or perforated zone in well casing (length)

t = time of a given static measurement during drawdown/recovery

Yo = initial drawdown relative to static water level after slug withdrawal (length)

Yt = water level displacement relative to static water level after a given time, t (length)

H = distance from bottom of well screen to water table (length)

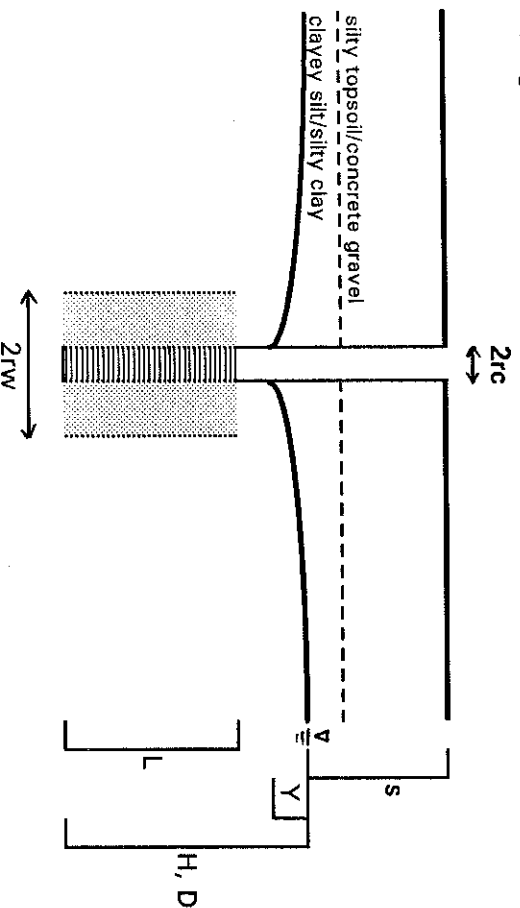
C = dimensionless parameter that is a function of L/rw

D = saturated aquifer thickness (length)

Given:	rc =	0.0833	feet
	rw =	0.3438	feet
	L =	4.625	feet
	yo =	1.2	feet
	H =	7.47	feet
	D =	7.47	feet
	s =	3.42	feet

where: s = initial static level in well

Geometry of MW8



$$L/rw = 13.45$$

therefore: C = 1.75 (see Figure 3)

solving for ln(Re/rw):

$$ln(Re/rw) = 2.0517$$

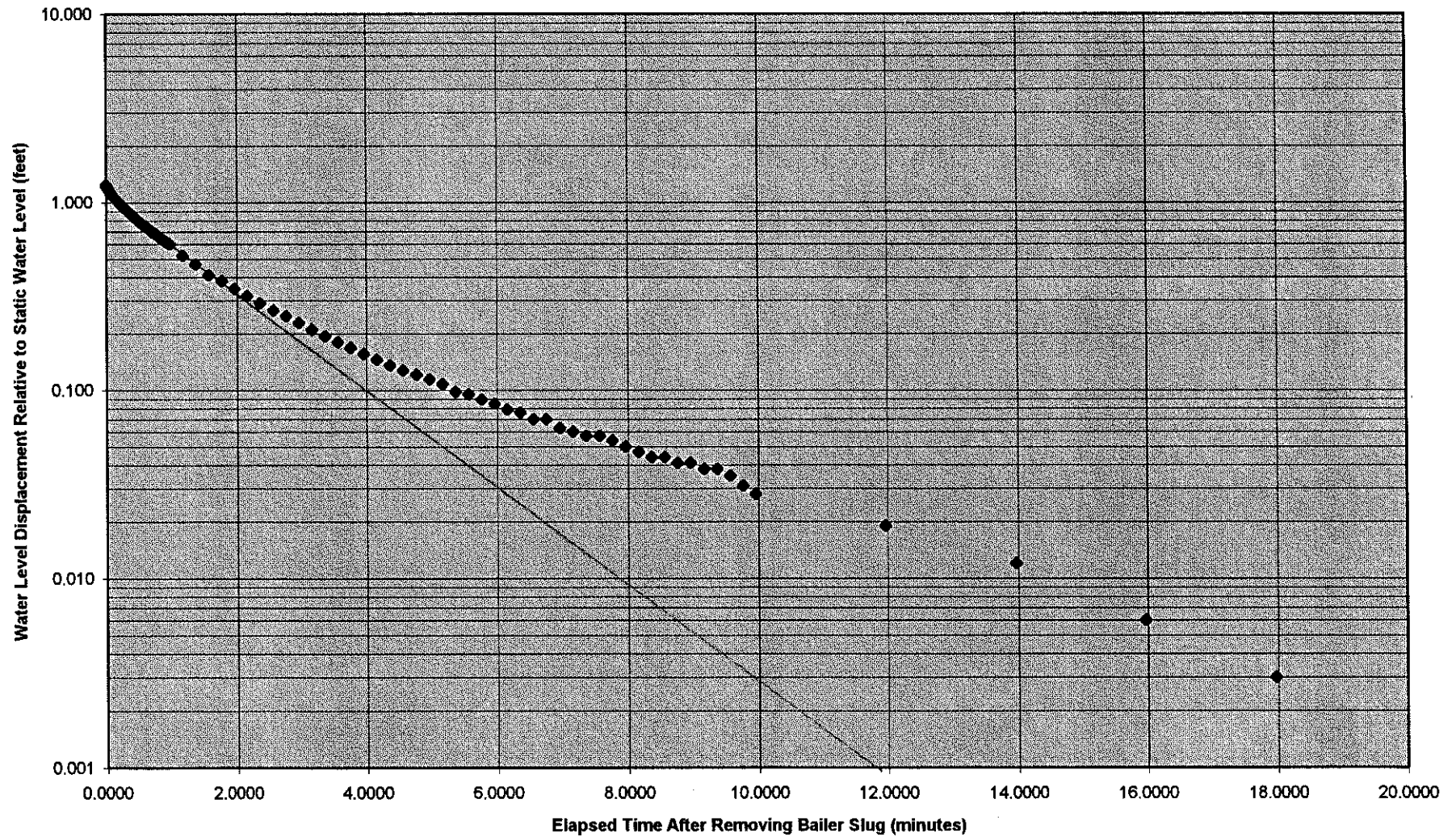
from Figure 1, the water level displacement = 0.1 feet when t = 60 minutes; therefore:

$$Yt = 0.35 \text{ ft} \quad t = 2 \text{ minutes}$$

$$(1/t)ln(Yo/Yt) = 0.61607 \text{ (1/minutes)}$$

K =	9.48E-04	ft/min
=	4.82E-04	cm/sec

Safety-Kleen Chicago Recycle Center, Bailer Rising Head Test in MW-8
Test 0 Step 1, February 15, 1994



February 15, 1994 Rising Head Test Data from MW-8, Safety-Kleen Chicago Recycle Center

Initial static water level (below TOC) =

6.11 feet

@ 08:20

test start time =

10:36

test stop time =

11:04

Time (min)	yt (ft)	Time (min)	yt (ft)	Time (min)	yt (ft)	Time (min)	yt (ft)
0.0000	1.24	0.1534	1.04	0.3467	0.89	2.7634	0.25
0.0034	1.22	0.1567	1.04	0.3634	0.88	2.9634	0.23
0.0067	1.22	0.1600	1.03	0.3800	0.87	3.1634	0.21
0.0100	1.21	0.1634	1.03	0.3967	0.86	3.3634	0.19
0.0134	1.21	0.1667	1.03	0.4134	0.85	3.5634	0.18
0.0167	1.20	0.1700	1.03	0.4300	0.84	3.7634	0.17
0.0200	1.20	0.1734	1.02	0.4467	0.83	3.9634	0.16
0.0234	1.19	0.1767	1.02	0.4634	0.82	4.1634	0.15
0.0267	1.18	0.1800	1.02	0.4800	0.81	4.3634	0.14
0.0300	1.18	0.1834	1.02	0.4967	0.80	4.5634	0.13
0.0334	1.17	0.1867	1.01	0.5134	0.79	4.7634	0.12
0.0367	1.17	0.1900	1.01	0.5300	0.78	4.9634	0.11
0.0400	1.16	0.1934	1.01	0.5467	0.78	5.1634	0.11
0.0434	1.16	0.1967	1.01	0.5634	0.77	5.3634	0.10
0.0467	1.15	0.2000	1.00	0.5800	0.76	5.5634	0.10
0.0500	1.15	0.2034	1.00	0.5967	0.75	5.7634	0.09
0.0534	1.15	0.2067	1.00	0.6134	0.75	5.9634	0.09
0.0567	1.15	0.2100	0.99	0.6300	0.74	6.1634	0.08
0.0600	1.14	0.2134	0.99	0.6467	0.73	6.3634	0.08
0.0634	1.13	0.2167	0.98	0.6634	0.72	6.5634	0.07
0.0667	1.12	0.2200	0.98	0.6800	0.71	6.7634	0.07
0.0700	1.12	0.2234	0.98	0.6967	0.70	6.9634	0.06
0.0734	1.12	0.2267	0.98	0.7134	0.70	7.1634	0.06
0.0767	1.12	0.2300	0.98	0.7300	0.69	7.3634	0.06
0.0800	1.11	0.2334	0.97	0.7467	0.68	7.5634	0.06
0.0834	1.11	0.2367	0.97	0.7634	0.68	7.7634	0.05
0.0867	1.10	0.2400	0.97	0.7800	0.67	7.9634	0.05
0.0900	1.10	0.2434	0.96	0.7967	0.66	8.1634	0.05
0.0934	1.09	0.2467	0.96	0.8134	0.66	8.3634	0.04
0.0967	1.09	0.2500	0.96	0.8300	0.65	8.5634	0.04
0.1000	1.09	0.2534	0.96	0.8467	0.64	8.7634	0.04
0.1034	1.09	0.2567	0.96	0.8634	0.64	8.9634	0.04
0.1067	1.08	0.2600	0.96	0.8800	0.63	9.1634	0.04
0.1100	1.08	0.2634	0.95	0.8967	0.62	9.3634	0.04
0.1134	1.08	0.2667	0.95	0.9134	0.62	9.5634	0.04
0.1167	1.07	0.2700	0.95	0.9300	0.61	9.7634	0.03
0.1200	1.07	0.2734	0.95	0.9467	0.61	9.9634	0.03
0.1234	1.07	0.2767	0.94	0.9634	0.60	11.9634	0.02
0.1267	1.06	0.2800	0.94	1.1634	0.52	13.9634	0.01
0.1300	1.06	0.2834	0.94	1.3634	0.47	15.9634	0.01
0.1334	1.06	0.2867	0.94	1.5634	0.41	17.9634	0.00
0.1367	1.05	0.2900	0.93	1.7634	0.38	19.9634	0.00
0.1400	1.05	0.2934	0.93	1.9634	0.35	21.9634	0.00
0.1434	1.05	0.2967	0.93	2.1634	0.32	23.9634	0.00
0.1467	1.04	0.3134	0.92	2.3634	0.29	25.9634	0.00
0.1500	1.04	0.3300	0.91	2.5634	0.27	27.9634	0.00

EVALUATION OF FEBRUARY 15, 1994 BALDOWN TEST DATA
Safety-Kleen Chicago Recycle Center
Monitoring Well MW-8, Pneumatic Rising Head Test (T1S0)

Application of Bouwers-Rice Method to Determine Hydraulic Conductivity (K).

Bouwers-Rice Equations for Fully Penetrating Wells in an Unconfined Aquifer:

(reference: Bouwers, Rice, A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells, Water Resources Research, Vol. 12, No. 3, June, 1976.)

$$K = [rc^2 2 \ln(Re/rw) / 2L] [1/t \ln(Y_0/Y_t)]$$

$$\ln(Re/rw) = 1/[1.1 \ln(H/rw) + C/(L/rw)]$$

where:

K = hydraulic conductivity (length/time)

rc = well casing radius (length)

Re = effective radius over which drawdown/recovery is dissipated (length)

rw = radius of casing plus thickness of gravel envelope or developed zone (length)

L = height of screen or perforated zone in well casing (length)

t = time of a given static measurement during drawdown/recovery

Y₀ = initial drawdown relative to static water level after air slug release (length)

Y_t = water level displacement relative to static water level after a given time, t (length)

H = distance from bottom of well screen to water table (length)

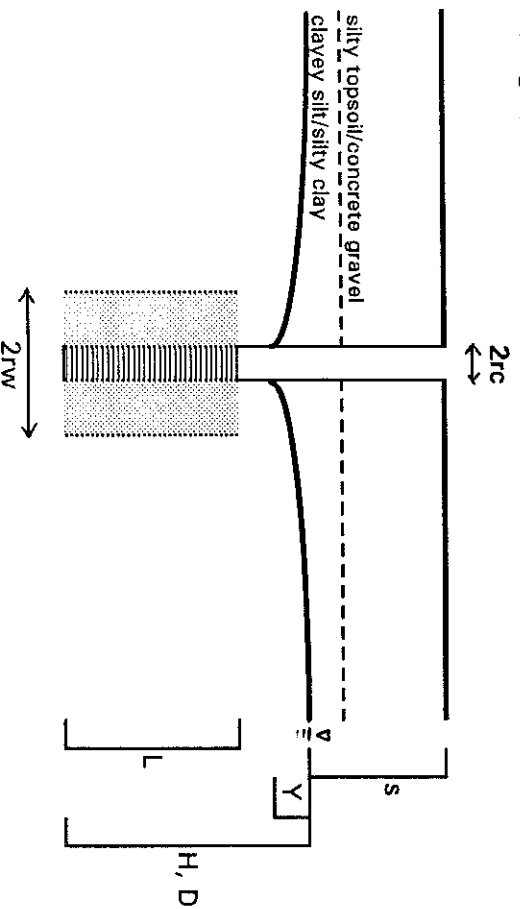
C = dimensionless parameter that is a function of L/rw

D = saturated aquifer thickness (length)

Given:

rc =	0.0833	feet
rw =	0.3438	feet
L =	4.625	feet
Y ₀ =	1.658	feet
H =	7.47	feet
D =	7.47	feet
s =	3.42	feet

where: s = initial static level in well.



Geometry of MW8

$$L/rw = 13.45$$

therefore: C = 1.75 (see Figure 3)

solving for $\ln(Re/rw)$:

$$\ln(Re/rw) = 2.0517$$

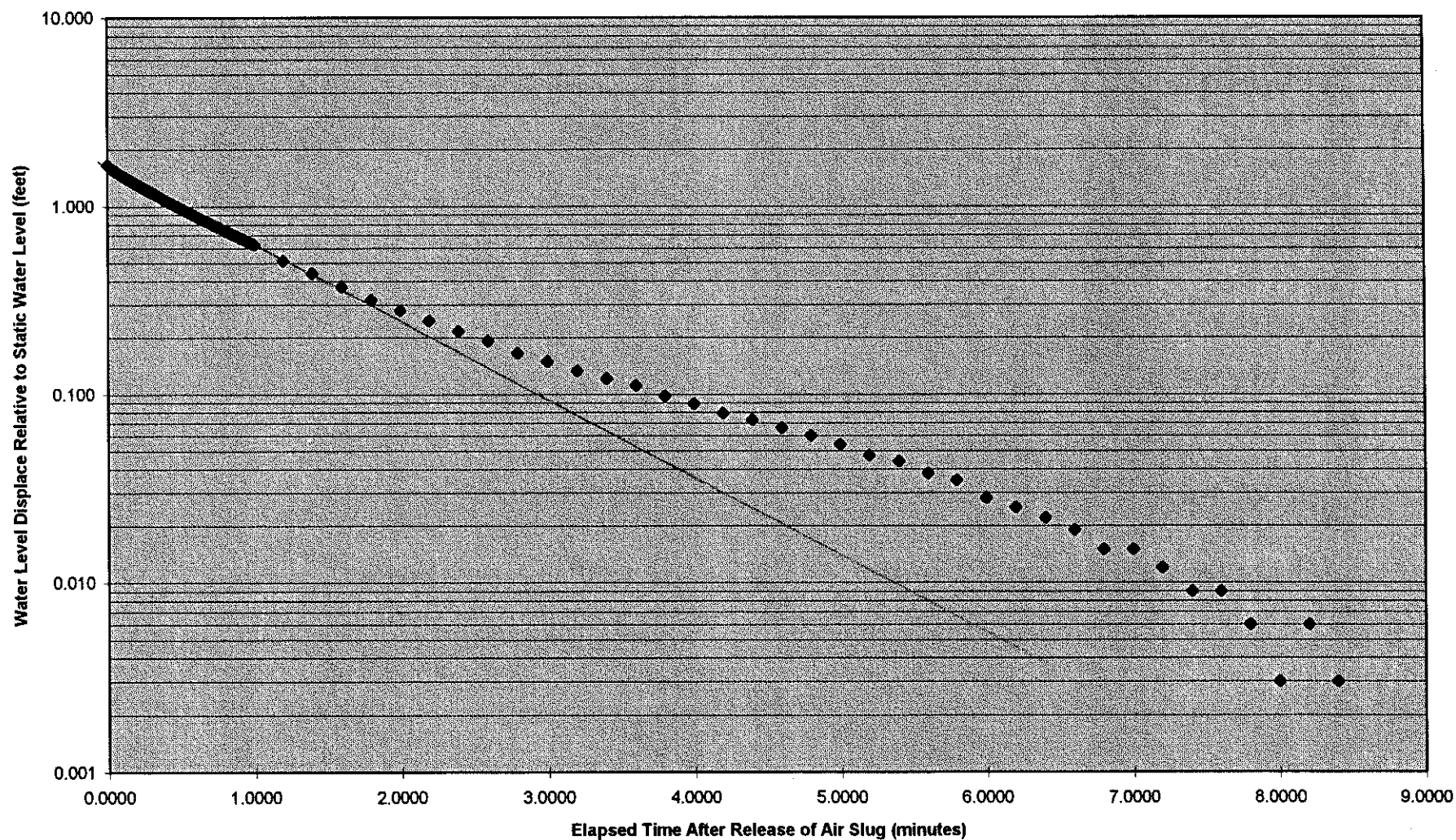
from Figure 1, the water level displacement = 0.1 feet when t = 60 minutes; therefore:

$$Y_t = 0.44 \text{ ft} \quad t = 1.4 \text{ minutes}$$

$$(1/t) \ln(Y_0/Y_t) = 0.94757 \text{ (1/minutes)}$$

K =	1.46E-03	ft/min
=	7.41E-04	cm/sec

Safety-Kleen Chicago Recycle Center Pneumatic Rising Head Test in MW-8
Test 1, Step 0, February 15, 1994



February 15, 1994 Rising Head Test Data from MW-8, Safety-Kleen Chicago Recycle Center

initial static water level (below TOC) =

6.11 feet

@ 08:20

test start time =

11:57

test stop time =

12:27

Time (min)	yt (ft)	Time (min)	yt (ft)	Time (min)	yt (ft)	Time (min)	yt (ft)
0.0000	1.66	0.1500	1.38	0.3000	1.18	0.9166	0.67
0.0033	1.65	0.1533	1.37	0.3033	1.18	0.9333	0.67
0.0066	1.64	0.1566	1.37	0.3066	1.18	0.9500	0.65
0.0100	1.63	0.1600	1.36	0.3100	1.17	0.9666	0.64
0.0133	1.62	0.1633	1.36	0.3133	1.17	0.9833	0.63
0.0166	1.61	0.1666	1.35	0.3166	1.17	1.0000	0.63
0.0200	1.60	0.1700	1.35	0.3200	1.16	1.2000	0.51
0.0233	1.60	0.1733	1.34	0.3233	1.16	1.4000	0.44
0.0266	1.59	0.1766	1.34	0.3266	1.15	1.6000	0.37
0.0300	1.58	0.1800	1.33	0.3300	1.15	1.8000	0.32
0.0333	1.58	0.1833	1.33	0.3333	1.15	2.0000	0.28
0.0366	1.57	0.1866	1.32	0.3500	1.13	2.2000	0.25
0.0400	1.56	0.1900	1.32	0.3666	1.11	2.4000	0.22
0.0433	1.55	0.1933	1.32	0.3833	1.09	2.6000	0.19
0.0466	1.55	0.1966	1.31	0.4000	1.07	2.8000	0.17
0.0500	1.54	0.2000	1.31	0.4166	1.05	3.0000	0.15
0.0533	1.54	0.2033	1.30	0.4333	1.04	3.2000	0.13
0.0566	1.53	0.2066	1.30	0.4500	1.02	3.4000	0.12
0.0600	1.53	0.2100	1.29	0.4666	1.01	3.6000	0.11
0.0633	1.52	0.2133	1.29	0.4833	0.99	3.8000	0.10
0.0666	1.51	0.2166	1.28	0.5000	0.97	4.0000	0.09
0.0700	1.51	0.2200	1.28	0.5166	0.96	4.2000	0.08
0.0733	1.50	0.2233	1.28	0.5333	0.95	4.4000	0.07
0.0766	1.50	0.2266	1.27	0.5500	0.93	4.6000	0.07
0.0800	1.49	0.2300	1.27	0.5666	0.92	4.8000	0.06
0.0833	1.48	0.2333	1.26	0.5833	0.90	5.0000	0.05
0.0866	1.48	0.2366	1.26	0.6000	0.89	5.2000	0.05
0.0900	1.47	0.2400	1.25	0.6166	0.88	5.4000	0.04
0.0933	1.46	0.2433	1.25	0.6333	0.86	5.6000	0.04
0.0966	1.46	0.2466	1.25	0.6500	0.85	5.8000	0.04
0.1000	1.46	0.2500	1.24	0.6666	0.84	6.0000	0.03
0.1033	1.45	0.2533	1.24	0.6833	0.82	6.2000	0.03
0.1066	1.45	0.2566	1.24	0.7000	0.81	6.4000	0.02
0.1100	1.44	0.2600	1.23	0.7166	0.80	6.6000	0.02
0.1133	1.43	0.2633	1.23	0.7333	0.79	6.8000	0.02
0.1166	1.43	0.2666	1.22	0.7500	0.78	7.0000	0.02
0.1200	1.42	0.2700	1.22	0.7666	0.77	7.2000	0.01
0.1233	1.42	0.2733	1.21	0.7833	0.75	7.4000	0.01
0.1266	1.41	0.2766	1.21	0.8000	0.74	7.6000	0.01
0.1300	1.41	0.2800	1.21	0.8166	0.73	7.8000	0.01
0.1333	1.40	0.2833	1.20	0.8333	0.72	8.0000	0.00
0.1366	1.40	0.2866	1.20	0.8500	0.71	8.2000	0.01
0.1400	1.39	0.2900	1.19	0.8666	0.70	8.4000	0.00
0.1433	1.39	0.2933	1.19	0.8833	0.69	8.6000	0.00
0.1466	1.38	0.2966	1.19	0.9000	0.68	8.8000	0.00

EVALUATION OF FEBRUARY 15, 1994 BALDWIN TEST DATA
 Safety-Kleen Chicago Recycle Center
 Monitoring Well MW-8, Pneumatic Rising Head Test (T2S0)

Application of Bouwers-Rice Method to Determine Hydraulic Conductivity (K).

Bouwers-Rice Equations for Fully Penetrating Wells in an Unconfined Aquifer:

(reference: Bouwers, Rice, A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells, Water Resources Research, Vol. 12, No. 3, June, 1976.)

$$K = [rc^2 2 \ln(Re/rw) / 2L] [1/t \ln(y_0/y_t)]$$

$$\ln(Re/rw) = 1/[1.1/\ln(H/rw) + C/(L/rw)]$$

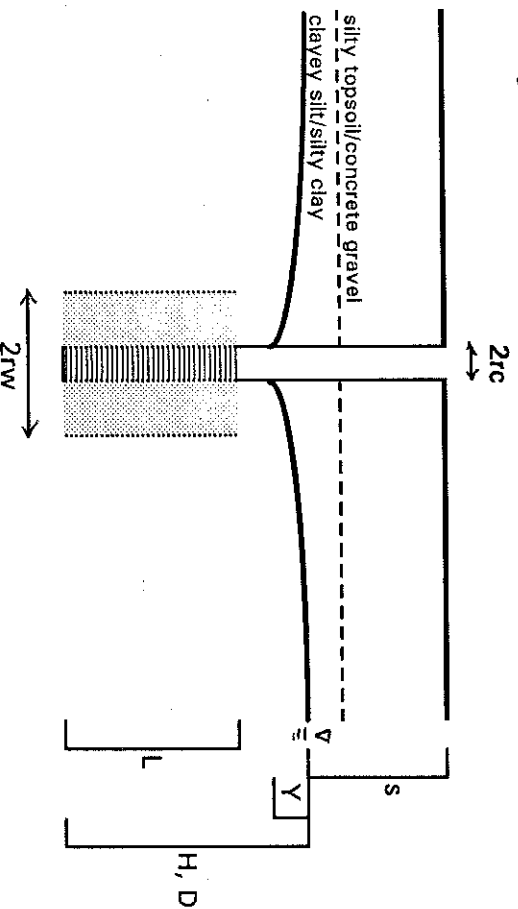
where:

- K = hydraulic conductivity (length/time)
- rc = well casing radius (length)
- Re = effective radius over which drawdown/recovery is dissipated (length)
- rw = radius of casing plus thickness of gravel envelope or developed zone (length)
- L = height of screen or perforated zone in well casing (length)
- t = time of a given static measurement during drawdown/recovery
- y₀ = initial drawdown relative to static water level after air slug release (length)
- y_t = water level displacement relative to static water level after a given time, t (length)
- H = distance from bottom of well screen to water table (length)
- C = dimensionless parameter that is a function of L/rw
- D = saturated aquifer thickness (length)

Given:	rc =	0.0833	feet
	rw =	0.3438	feet
	L =	4.625	feet
	y ₀ =	1.73	feet
	H =	7.47	feet
	D =	7.47	feet
	s =	3.42	feet

where: s = initial static level in well

Geometry of MW8



$$L/rw = 13.45$$

therefore: C = 1.75 (see Figure 3)

solving for $\ln(Re/rw)$:

$$\ln(Re/rw) = 2.0517$$

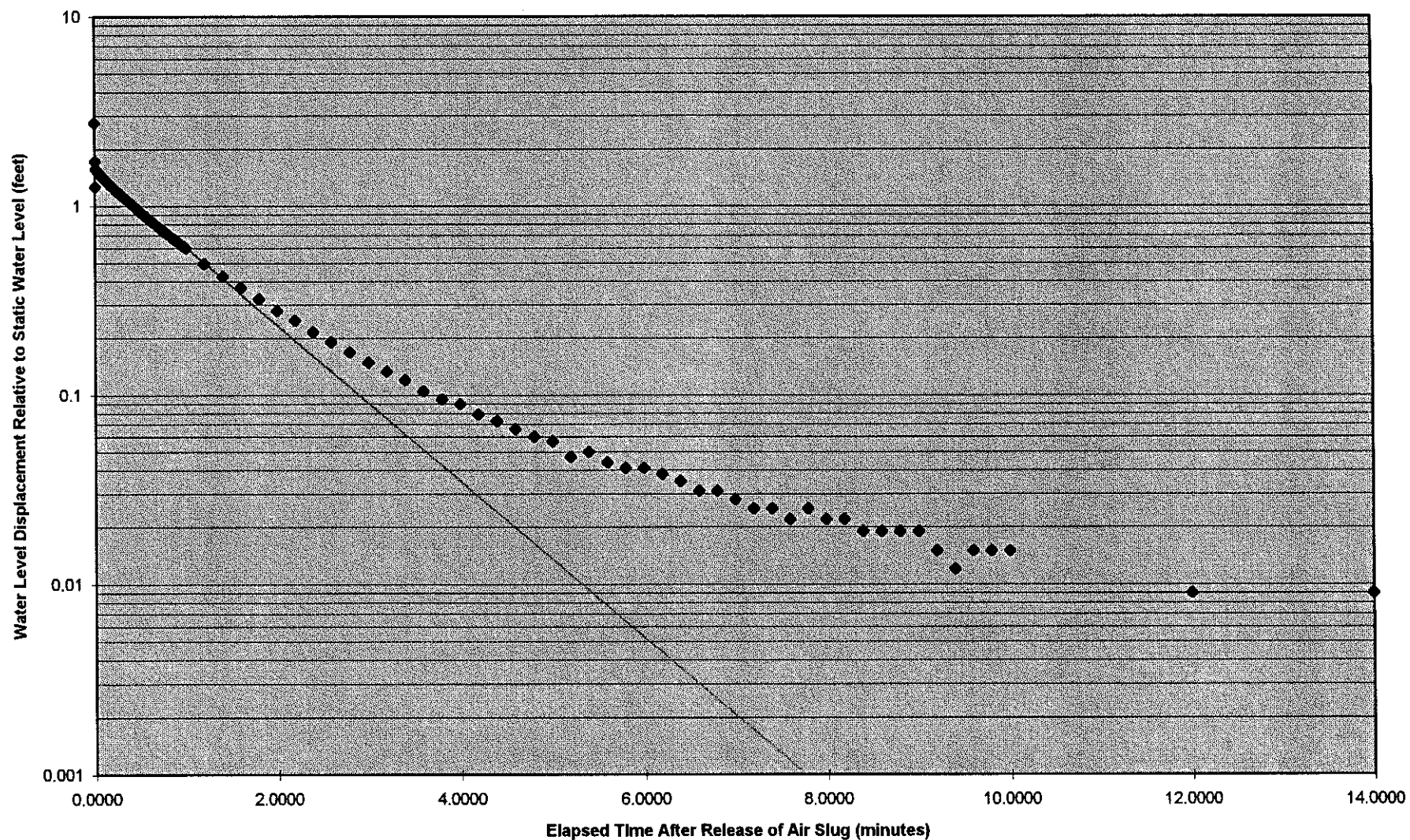
from Figure 1, the water level displacement = 0.1 feet when t = 60 minutes; therefore:

$$y_t = 0.5 \text{ ft} \quad t = 1.19 \text{ minutes}$$

$$(1/t) \ln(y_0/y_t) = 1.04308 \text{ (1/minutes)}$$

K =	1.61E-03	ft/min
=	8.16E-04	cm/sec

Safety-Kleen Chicago Recycle Center Pneumatic Rising Head Test in MW-8
Test 2, Step 0 February 15, 1994



February 15, 1994 Rising Head Test Data from MW-8, Safety-Kleen Chicago Recycle Center

initial static water level (below TOC) =

6.11 feet

@ 08:20

test start time =

12:41

test stop time =

12:55

Time (min)	yt (ft)	Time (min)	yt (ft)	Time (min)	yt (ft)	Time (min)	yt (ft)
0.0000	2.76	0.1667	1.31	0.3134	1.11	1.5934	0.37
0.0034	1.27	0.1600	1.31	0.3167	1.11	1.7934	0.32
0.0067	1.73	0.1634	1.30	0.3200	1.11	1.9934	0.28
0.0100	1.68	0.1667	1.30	0.3234	1.10	2.1934	0.25
0.0134	1.58	0.1700	1.29	0.3267	1.10	2.3934	0.22
0.0167	1.58	0.1734	1.29	0.3434	1.08	2.5934	0.19
0.0200	1.56	0.1767	1.28	0.3600	1.07	2.7934	0.17
0.0234	1.55	0.1800	1.28	0.3767	1.05	2.9934	0.15
0.0267	1.54	0.1834	1.28	0.3934	1.03	3.1934	0.13
0.0300	1.53	0.1867	1.27	0.4100	1.01	3.3934	0.12
0.0334	1.53	0.1900	1.27	0.4267	1.00	3.5934	0.11
0.0367	1.52	0.1934	1.26	0.4434	0.98	3.7934	0.10
0.0400	1.51	0.1967	1.26	0.4600	0.86	3.9934	0.08
0.0434	1.50	0.2000	1.25	0.4767	0.95	4.1934	0.08
0.0467	1.50	0.2034	1.25	0.4934	0.93	4.3934	0.07
0.0500	1.49	0.2067	1.24	0.5100	0.92	4.5934	0.07
0.0534	1.48	0.2100	1.24	0.5267	0.90	4.7934	0.06
0.0567	1.48	0.2134	1.24	0.5434	0.89	4.9934	0.06
0.0600	1.47	0.2167	1.23	0.5600	0.88	5.1934	0.06
0.0634	1.46	0.2200	1.23	0.5767	0.86	5.3934	0.05
0.0667	1.46	0.2234	1.22	0.5934	0.85	5.5934	0.04
0.0700	1.45	0.2267	1.22	0.6100	0.84	5.7934	0.04
0.0734	1.45	0.2300	1.21	0.6267	0.82	5.9934	0.04
0.0767	1.44	0.2334	1.21	0.6434	0.82	6.1934	0.04
0.0800	1.44	0.2367	1.21	0.6600	0.80	6.3934	0.04
0.0834	1.43	0.2400	1.20	0.6767	0.78	6.5934	0.03
0.0867	1.42	0.2434	1.20	0.6934	0.78	6.7934	0.03
0.0900	1.42	0.2467	1.19	0.7100	0.78	6.9934	0.03
0.0934	1.41	0.2500	1.19	0.7267	0.75	7.1934	0.03
0.0967	1.40	0.2534	1.18	0.7434	0.74	7.3934	0.03
0.1000	1.40	0.2567	1.18	0.7600	0.73	7.5934	0.02
0.1034	1.39	0.2600	1.17	0.7767	0.72	7.7934	0.03
0.1067	1.39	0.2634	1.17	0.7934	0.71	7.9934	0.02
0.1100	1.39	0.2667	1.17	0.8100	0.70	8.1934	0.02
0.1134	1.38	0.2700	1.17	0.8267	0.69	8.3934	0.02
0.1167	1.37	0.2734	1.16	0.8434	0.68	8.5934	0.02
0.1200	1.37	0.2767	1.16	0.8600	0.67	8.7934	0.02
0.1234	1.36	0.2800	1.15	0.8767	0.66	8.9934	0.02
0.1267	1.36	0.2834	1.15	0.8934	0.66	9.1934	0.02
0.1300	1.35	0.2867	1.15	0.9100	0.65	9.3934	0.01
0.1334	1.35	0.2900	1.14	0.9267	0.64	9.5934	0.02
0.1367	1.34	0.2934	1.14	0.9434	0.63	9.7934	0.02
0.1400	1.34	0.2967	1.13	0.9600	0.62	9.9934	0.02
0.1434	1.33	0.3000	1.13	0.9767	0.61	11.9934	0.01
0.1467	1.32	0.3034	1.13	0.9934	0.60		
0.1500	1.32	0.3067	1.12	1.1934	0.60		
0.1534	1.31	0.3100	1.12	1.3934	0.43		

EVALUATION OF FEBRUARY 16, 1994 BAILDOWN TEST DATA

Safety-Kleen Chicago Recycle Center

Monitoring Well MW-9, Pneumatic Rising Head Test (T3S0)

Application of Bouwers-Rice Method to Determine Hydraulic Conductivity (K).

Bouwers-Rice Equations for Fully Penetrating Wells in an Unconfined Aquifer:

(reference: Bouwers, Rice, A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells, Water Resources Research, Vol. 12, No. 3, June, 1976.)

$$K = [rc^2 \ln(Re/rw) / 2L] [(1/t) \ln(y_o/y_t)]$$

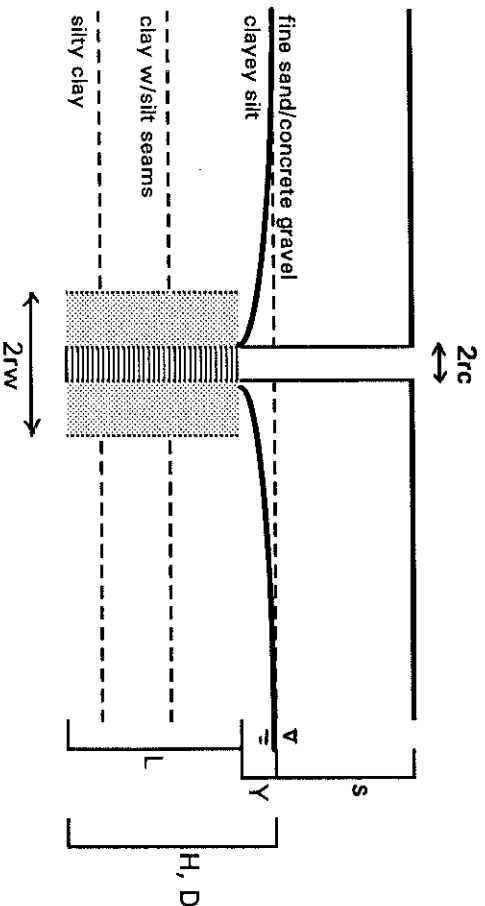
$$\ln(Re/rw) = 1/[1.1 \ln(H/rw) + C/(L/rw)]$$

where:

- K = hydraulic conductivity (length/time)
- rc = well casing radius (length)
- Re = effective radius over which drawdown/recovery is dissipated (length)
- rw = radius of casing plus thickness of gravel envelope or developed zone (length)
- L = height of screen or perforated zone in well casing (length)
- t = time of a given static measurement during drawdown/recovery
- Yo = initial drawdown relative to static water level after air slug release (length)
- Yt = water level displacement relative to static water level after a given time, t (length)
- H = distance from bottom of well screen to water table (length)
- C = dimensionless parameter that is a function of L/rw
- D = saturated aquifer thickness (length)

Given:	rc =	0.0833	feet
	rw =	0.3438	feet
	L =	4.625	feet
	yo =	0.5	feet
	H =	8	feet
	D =	8	feet
	s =	4.07	feet

where: s = initial static level in well



$$L/rw = 13.45$$

therefore: C = 1.75 (see Figure 3)

solving for $\ln(Re/rw)$:

$$\ln(Re/rw) = 2.0850$$

from Figure 1, the water level displacement = 0.1 feet when t = 60 minutes; therefore:

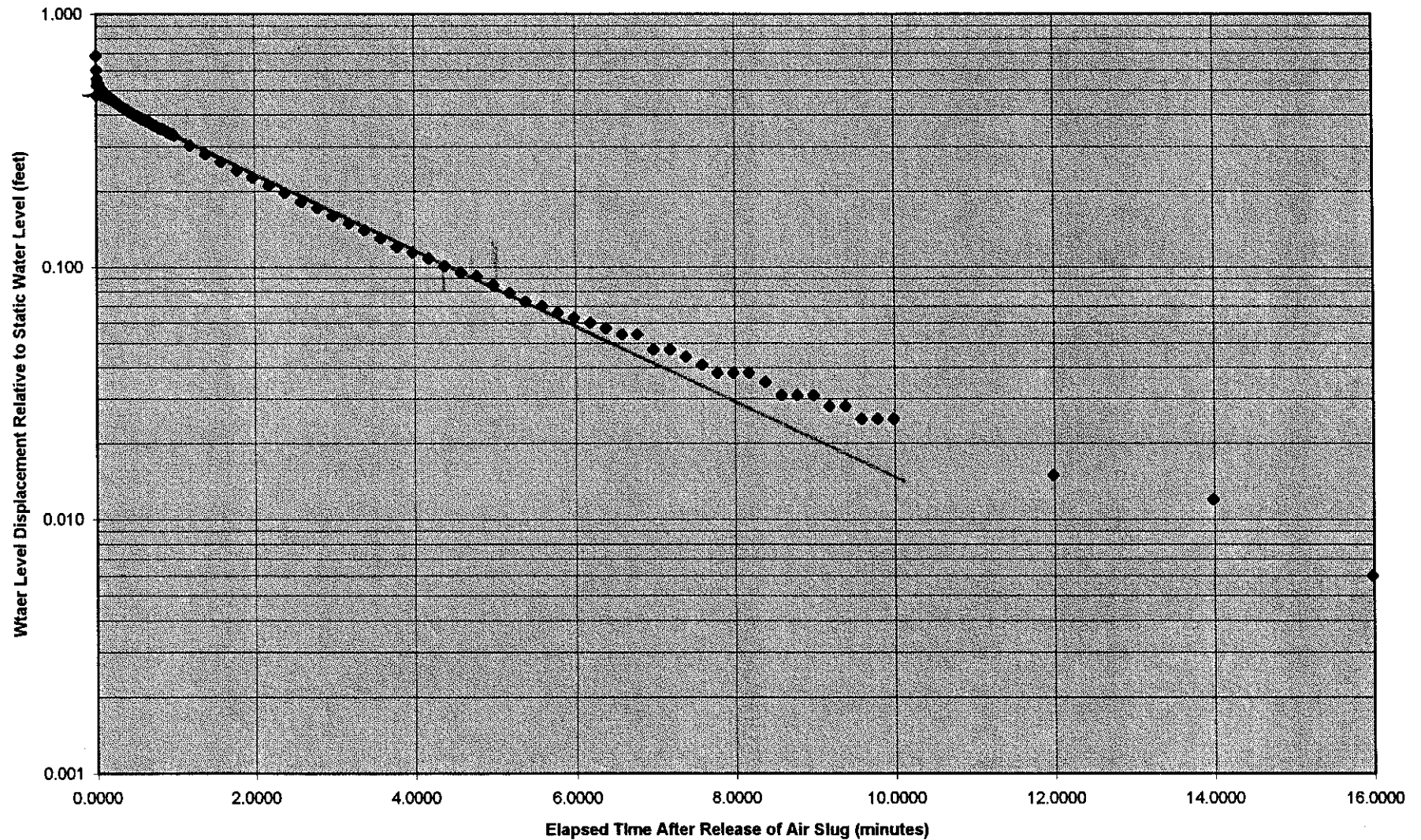
$$Y_t = 0.1 \text{ ft} \quad t = 4.3 \text{ minutes}$$

$$(1/t) \ln(Y_o/Y_t) = 0.37429 \text{ (1/minutes)}$$

$$K = 5.85E-04 \text{ ft/min}$$

$$= 2.97E-04 \text{ cm/sec}$$

Safety-Kleen Chicago Recycle Center, Pneumatic Rising Head Test in MW-9
Test 3 Step 0, February 16, 1994



February 16, 1994 Rising Head Test Data from MW-9, Safety-Kleen Chicago Recycle Center

Initial static water level (below TOC) = 6.76 feet @ 08:35

test start time = 9:43

test stop time = 10:00

Time (min)	yt (ft)	Time (min)	yt (ft)	Time (min)	yt (ft)	Time (min)	yt (ft)
0.0000	0.68	0.1534	0.47	0.3067	0.44	1.5834	0.26
0.0034	0.48	0.1567	0.47	0.3100	0.44	1.7834	0.24
0.0067	0.60	0.1600	0.47	0.3134	0.44	1.9834	0.23
0.0100	0.52	0.1634	0.47	0.3167	0.43	2.1834	0.21
0.0134	0.56	0.1667	0.47	0.3334	0.43	2.3834	0.20
0.0167	0.53	0.1700	0.47	0.3500	0.43	2.5834	0.18
0.0200	0.54	0.1734	0.47	0.3667	0.42	2.7834	0.17
0.0234	0.53	0.1767	0.47	0.3834	0.42	2.9834	0.16
0.0267	0.53	0.1800	0.47	0.4000	0.42	3.1834	0.15
0.0300	0.53	0.1834	0.46	0.4167	0.41	3.3834	0.14
0.0334	0.53	0.1867	0.46	0.4334	0.41	3.5834	0.13
0.0367	0.52	0.1900	0.46	0.4500	0.41	3.7834	0.12
0.0400	0.52	0.1934	0.46	0.4667	0.40	3.9834	0.11
0.0434	0.52	0.1967	0.46	0.4834	0.40	4.1834	0.11
0.0467	0.52	0.2000	0.46	0.5000	0.40	4.3834	0.10
0.0500	0.52	0.2034	0.46	0.5167	0.40	4.5834	0.10
0.0534	0.51	0.2067	0.46	0.5334	0.39	4.7834	0.09
0.0567	0.51	0.2100	0.46	0.5500	0.39	4.9834	0.09
0.0600	0.51	0.2134	0.46	0.5667	0.39	5.1834	0.08
0.0634	0.51	0.2167	0.46	0.5834	0.39	5.3834	0.07
0.0667	0.51	0.2200	0.46	0.6000	0.38	5.5834	0.07
0.0700	0.50	0.2234	0.46	0.6167	0.38	5.7834	0.07
0.0734	0.50	0.2267	0.46	0.6334	0.38	5.9834	0.06
0.0767	0.50	0.2300	0.46	0.6500	0.38	6.1834	0.06
0.0800	0.50	0.2334	0.46	0.6667	0.38	6.3834	0.06
0.0834	0.50	0.2367	0.45	0.6834	0.37	6.5834	0.05
0.0867	0.50	0.2400	0.45	0.7000	0.37	6.7834	0.05
0.0900	0.50	0.2434	0.45	0.7167	0.37	6.9834	0.05
0.0934	0.49	0.2467	0.45	0.7334	0.36	7.1834	0.05
0.0967	0.49	0.2500	0.45	0.7500	0.36	7.3834	0.04
0.1000	0.49	0.2534	0.45	0.7667	0.36	7.5834	0.04
0.1034	0.49	0.2567	0.45	0.7834	0.36	7.7834	0.04
0.1067	0.49	0.2600	0.45	0.8000	0.35	7.9834	0.04
0.1100	0.49	0.2634	0.45	0.8167	0.35	8.1834	0.04
0.1134	0.49	0.2667	0.45	0.8334	0.35	8.3834	0.04
0.1167	0.48	0.2700	0.45	0.8500	0.35	8.5834	0.03
0.1200	0.48	0.2734	0.44	0.8667	0.35	8.7834	0.03
0.1234	0.48	0.2767	0.44	0.8834	0.34	8.9834	0.03
0.1267	0.48	0.2800	0.44	0.9000	0.34	9.1834	0.03
0.1300	0.48	0.2834	0.44	0.9167	0.34	9.3834	0.03
0.1334	0.48	0.2867	0.44	0.9334	0.34	9.5834	0.03
0.1367	0.48	0.2900	0.44	0.9500	0.34	9.7834	0.03
0.1400	0.48	0.2934	0.44	0.9667	0.33	9.9834	0.03
0.1434	0.48	0.2967	0.44	0.9834	0.33	11.9834	0.02
0.1467	0.47	0.3000	0.44	1.1834	0.30	13.9834	0.01
0.1500	0.47	0.3034	0.44	1.3834	0.28	15.9834	0.01

EVALUATION OF FEBRUARY 16, 1994 BAILDOWN TEST DATA

Safety-Kleen Chicago Recycle Center

Monitoring Well MW-9, Pneumatic Rising Head Test (T3S1)

Application of Bouwers-Rice Method to Determine Hydraulic Conductivity (K).

Bouwers-Rice Equations for Fully Penetrating Wells in an Unconfined Aquifer:

(reference: Bouwers, Rice, A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells, Water Resources Research, Vol. 12, No. 3, June, 1976.)

$$K = [rc^2 \ln(Re/rw) / 2L] [(1/t) \ln(y_o/Y_t)]$$

$$\ln(Re/rw) = 1/[1.1/\ln(H/rw) + C/(L/rw)]$$

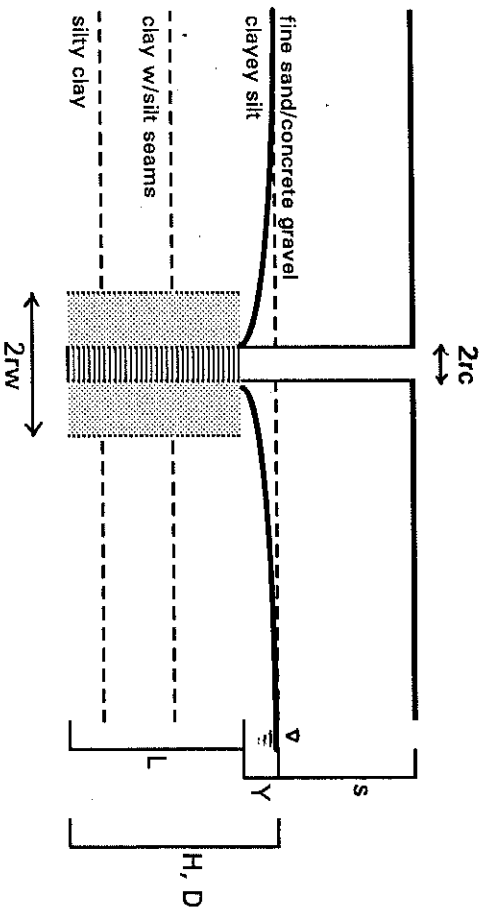
where:

- K = hydraulic conductivity (length/time)
- rc = well casing radius (length)
- Re = effective radius over which drawdown/recovery is dissipated (length)
- rw = radius of casing plus thickness of gravel envelope or developed zone (length)
- L = height of screen or perforated zone in well casing (length)
- t = time of a given static measurement during drawdown/recovery
- Y_o = initial drawdown relative to static water level after air slug release (length)
- Y_t = water level displacement relative to static water level after a given time, t (length)
- H = distance from bottom of well screen to water table (length)
- C = dimensionless parameter that is a function of L/rw
- D = saturated aquifer thickness (length)

Given:

rc =	0.0833	feet
rw =	0.3438	feet
L =	4.625	feet
y _o =	0.75	feet
H =	8	feet
D =	8	feet
s =	4.07	feet

where: s = initial static level in well



$$L/rw = 13.45$$

therefore: C = 1.75 (see Figure 3)

solving for $\ln(Re/rw)$:

$$\ln(Re/rw) = 2.0850$$

from Figure 1, the water level displacement = 0.1 feet when t = 60 minutes; therefore:

$$Y_t = 0.1 \text{ ft} \quad t = 60 \text{ minutes}$$

$$(1/t) \ln(Y_o/Y_t) = 0.33582 \text{ (1/minutes)}$$

K =	5.25E-04	ft/min
=	2.67E-04	cm/sec

February 16, 1994 Rising Head Test Data from MW-9, Safety-Kleen Chicago Recycle Center

initial static water level (below TOC) =

6.76 feet

@ 08:35

test start time =

10:05

test stop time =

10:18

Time (min)	yt (ft)	Time (min)	yt (ft)	Time (min)	yt (ft)	Time (min)	yt (ft)
0.0000	0.98	0.1567	0.73	0.3134	0.68	1.5934	0.41
0.0034	0.79	0.1600	0.72	0.3167	0.68	1.7934	0.39
0.0067	0.80	0.1634	0.72	0.3200	0.68	1.9934	0.37
0.0100	0.80	0.1667	0.72	0.3234	0.68	2.1934	0.34
0.0134	0.78	0.1700	0.72	0.3267	0.67	2.3934	0.32
0.0167	0.78	0.1734	0.72	0.3434	0.67	2.5934	0.31
0.0200	0.78	0.1767	0.72	0.3600	0.67	2.7934	0.29
0.0234	0.78	0.1800	0.72	0.3767	0.66	2.9934	0.27
0.0267	0.77	0.1834	0.72	0.3834	0.66	3.1934	0.25
0.0300	0.77	0.1867	0.72	0.4100	0.65	3.3934	0.24
0.0334	0.77	0.1900	0.71	0.4267	0.65	3.5934	0.22
0.0367	0.77	0.1934	0.71	0.4434	0.65	3.7934	0.21
0.0400	0.77	0.1967	0.71	0.4600	0.64	3.9934	0.20
0.0434	0.76	0.2000	0.71	0.4767	0.64	4.1934	0.19
0.0467	0.76	0.2034	0.71	0.4934	0.63	4.3934	0.18
0.0500	0.76	0.2067	0.71	0.5100	0.63	4.5934	0.17
0.0534	0.76	0.2100	0.71	0.5267	0.62	4.7934	0.16
0.0567	0.76	0.2134	0.71	0.5434	0.62	4.9934	0.15
0.0600	0.75	0.2167	0.71	0.5600	0.61	5.1934	0.14
0.0634	0.75	0.2200	0.71	0.5767	0.61	5.3934	0.13
0.0667	0.75	0.2234	0.70	0.5934	0.61	5.5934	0.12
0.0700	0.75	0.2267	0.70	0.6100	0.60	5.7934	0.11
0.0734	0.75	0.2300	0.70	0.6267	0.60	5.9934	0.11
0.0767	0.75	0.2334	0.70	0.6434	0.60	6.1934	0.10
0.0800	0.75	0.2367	0.70	0.6600	0.59	6.3934	0.10
0.0834	0.75	0.2400	0.70	0.6767	0.59	6.5934	0.09
0.0867	0.74	0.2434	0.70	0.6934	0.59	6.7934	0.09
0.0900	0.74	0.2467	0.70	0.7100	0.58	6.9934	0.08
0.0934	0.74	0.2500	0.70	0.7267	0.58	7.1934	0.08
0.0967	0.74	0.2534	0.70	0.7434	0.58	7.3934	0.07
0.1000	0.74	0.2567	0.70	0.7600	0.57	7.5934	0.07
0.1034	0.74	0.2600	0.69	0.7767	0.57	7.7934	0.07
0.1067	0.74	0.2634	0.69	0.7934	0.56	7.9934	0.06
0.1100	0.74	0.2667	0.69	0.8100	0.56	8.1934	0.06
0.1134	0.74	0.2700	0.69	0.8267	0.56	8.3934	0.05
0.1167	0.74	0.2734	0.69	0.8434	0.55	8.5934	0.05
0.1200	0.74	0.2767	0.69	0.8600	0.55	8.7934	0.05
0.1234	0.74	0.2800	0.69	0.8767	0.55	8.9934	0.05
0.1267	0.73	0.2834	0.69	0.8934	0.54	9.1934	0.04
0.1300	0.73	0.2867	0.68	0.9100	0.54	9.3934	0.04
0.1334	0.73	0.2900	0.68	0.9267	0.54	9.5934	0.04
0.1367	0.73	0.2934	0.68	0.9434	0.53	9.7934	0.04
0.1400	0.73	0.2967	0.68	0.9600	0.53	9.9934	0.04
0.1434	0.73	0.3000	0.68	0.9767	0.53	11.9934	0.02
0.1467	0.73	0.3034	0.68	0.9934	0.52	13.9934	0.01
0.1500	0.73	0.307	0.681	1.1934	0.48		
0.1534	0.73	0.3100	0.68	1.3934	0.45		

**Safety-Kleen Chicago Recycle Center, Pneumatic Rising Head Test in MW-9
Test 3 Step 1, February 16, 1994**

